

Settlement Commissioner's Review of the Assessment Reports* of the Firozpur and Nuh Tahsils.

THE tract dealt with in these two reports comprises along its eastern boundary a strip of the high-lying land above the Jamna bank, known as Bangar,

Descriptive

which slopes eastward down towards the Jamna and westwards down to a depression that, extending from north to south down the middle, used at one time to receive the drainage from hills, valleys and torrents in the south-west, west and north of the tract and, while retaining part of the drainage in *phils* or swamps, conveyed part away to Bharatpur territory to the south. In the south-west corner, west of this depression, comes down the Landoha valley, the upper (and southern) portion of which is in Alwar territory. It is enclosed between two parallel ranges of low hills, the westernmost of which extends northwards so as to form the western boundary of the tract throughout, except in the north-west corner, where the Taoru plateau, sloping down west of the range, is included within the limits of the tract. The range confining the Landoha valley on the east sinks down into the plain towards the centre of the tract, and after forming up to that point the watershed between the Landoha on the west and the drainage depression on the east, there permits the former to join the latter. The tendency of the Landoha water, however, appears at a comparatively recent time to have been to turn, not south-eastwards into this depression, but northwards into the Kotla *phil*, one of the swamps above referred to, which lies immediately under the westernmost range of hills, and it was to guide it away from this, and into the central drainage depression that one of the oldest and largest of the many embankments which are fully described in paragraph 4 of the Nuh report and paragraphs 2 and 3 of the Firozpur report, *viz*, the Kotla *band*, was constructed. Towards this central point, also, the flood water brought by torrents rising in the north in the hills of the Gurgaon tahsil and flowing southwards, had a strong inclination to turn, or such of it as was left after it had filled the swamps in the north-eastern extremity of the tract, of which the largest were the Khalilpur and Chandaini *phils*. The object of the first series of embankments described in detail in these two reports, the series, that is, that was constructed before the first regular settlement, was to keep the flood water of the Landoha valley to the south out of these swamps and to distribute it, and the overflow from the swamps, beneficially over cultivated land, passing the surplus down the central drainage depression to Bharatpur. The originators of these embankments had for their object to drain a water-logged and unhealthy tract. In constructing the later (Kauri) embankments within this tract, Mr Macdonald had a similar object, *viz*, to keep the flood water of the northern torrents out of the swamps and to spread it over the fields. His scheme, however, also included a still later series of embankments in the Gurgaon tahsil which was intended, on the other hand, to hold up the northern torrents as near their sources as possible and utilize them there. Extensive training works undertaken by the Alwar Debar in the Upper Landoha valley have led to the utilization of more water in that State. Consequently, for ten years or more, little flood water has come either from the north or from the south, and the embankments within these two tahsils have had little work to do. These ten years, however, have been years of deficient rainfall, and it may be going too far to say that the later systems of embankments have so effectually controlled the torrents above as not only to render the original system unnecessary but also to change essentially the nature of the low-lying land in the tract now under consideration by depriving it of the flood water which was beneficial to it. The question is one that has a very vital bearing on the assessment proposed for this land.

* Sent to the Settlement Commissioner for the Firozpur and Nuh tahsils on 1st December 1907, respectively, and received by the Settlement Commissioner for the Firozpur and Nuh tahsils on 1st December 1907.

Assessment Circles

* The large percentage in the Dakar Mitha circle has no significance, as is explained on page 22 of the report.

3. The assessing officers have, in accordance with rule, prepared two estimates of the net income to proprietors from the land, the one based on the

Rents as a guide to assessment.

share of the produce taken when the rent is collected in kind, and the other on cash rents. It is well to consider before examining these estimates in detail, how far they can be relied on as representative of the income to the peasant proprietors who themselves cultivate more than half the area in each circle, and which of them is the better guide in each of the various circles. For the purpose of this enquiry the percentages of cultivated land held by non-occupancy tenants paying cash rents as given in paragraph 23 of the Nuh report are deceptive, because they include all such lands irrespective of the nature of the cash rent paid. In the table below the percentages have been reduced so as to include only the land entered in column 11 of Statement XI as paying "other cash rents" and to exclude land paying at revenue rates with or without *malikana*.

Tahsil	Circle	PER CENTAGE OF CULTIVATED LAND HELD BY TENANTS PAYING	
		In kind	In cash.
Nuh	Bangar	7	11
Firozpur	"	6	13
Nuh	Dahar	11	16
Firozpur	Chiknot	17	6
"	Dahar Khari	13	21
"	" Mitha	7	31
Nuh	Tuora	3	17
Firozpur	Bhuder	5	18

In the three circles placed lowest in this table the cash rent estimate is clearly a better guide than the produce estimate. In the Chiknot, on the other hand, the area under rents paid in kind is much greater than that under cash rents, and although it is not so in the Nuh Dahar and in the Dahar Khari, it is of considerable importance in these two circles. And Mr. Boughey's remarks, in paragraph 24 of his report, are worthy of note, they show that in the Dahar circle, at any rate, there is a growing preference on the part of tenants to pay in kind, a recognition that this class of rent is better suited than cash to the now precarious nature of the cropping. In the two Bangar circles the larger area is under cash rents, but the remarks on page 28 of Mr Boughey's report show that the cash rents paid on canal irrigated land in the Nuh Bangar, are no true indication of the letting value of that class of land. No such objection is taken to the recorded cash rents on that soil in the Firozpur Bangar but it is stated (page 32 of the report) that its renting value is the same as that of unirrigated land. That of the best unirrigated land is meant. The above comparison shows the extent to which the two estimates can be made use of in the various circles. In deducing from them the estimate of the net income of the self-cultivating proprietor the Settlement Officer and his Assistant have considered it necessary to make allowances and reductions of various kinds, which will be considered when the assessments proposed for the various circles are discussed.

4. As the basis of the estimate of income from rents in kind, the aver-

Average cropped area forming the basis of the produce estimate.

age area cropped annually is taken of a five years' period which is different in each of the two tahsils. In Nuh the period is that of the years 1898-99 to 1903-04, excluding the famine year of 1899-1900, or the same as was taken in Rewari and Palwal. In Firozpur, with Mr. Douie's approval, Mr. Gibson adopted the five years 1900-01 to 1904-05 instead, as giving a more typical average of the distribution, of crops. The propriety of making a similar change in Nuh was considered but I understand that there the later cycle was held not to be any more representative than the other. In a tract where rainfall and flooding are so

variable and precarious as they are shown to be in the Rainfall Return (Statement I appended to the report) it is hard to pick out any cycle as typical of the tract, but it is noteworthy that the five years adopted in Nuh give an average cropped area which is less than the average; according to Statement X, of the 21 years ending 1905-06, among which are included 1896-97 and 1890-1900, two years of famine in the Punjab, the areas being 87 and 90·7 per cent respectively of the total cultivated area. This is for the tahsil as a whole. For the Dahar circle the difference is still more marked, the percentages being 72·8 and 78·6. For the Bangar circle the corresponding figures are 94·7 and 98·1. In the Taoru circle, on the other hand, the average for the five years nearly coincides with that of the 21 years. In the Firozpur tahsil, even with the different term of five years, the average area cropped is well below the average of the 21 years in the two Dahar circles and the Chiknot though nearly equal to it in the other two circles, the percentages of cultivated area being—

	Bangar	Bhuder	Dahar Mitha	Dahar Khari	Chiknot
For 5 years	99·5	90·7	89·8	88·4	66·6
For 21 years	102·2	91·6	93	93·9	72·8

5. The rainfall statement* may, in this connection, be referred to. It shows that the two tahsils have an average rainfall of from 23 to 24 inches, of which 20 to 22 should fall in the four months, June to September, and 2½ to 3 inches in the cold weather. During the 11 years 1895-96 to 1905-06, however, the rainfall was below the average in seven years in Firozpur and in eight years in Nuh, and very often much below it; while in the previous 10 years it was only twice below it, and not badly so. If regard be had to the rain of September which is so important for the Rabi harvest, and also to the rainfall of the subsequent cold weather months the deficiency of the last 11 years is also marked, as compared with the amount received in the previous 10 years. It may be doubted whether even the period of 21 years for which figures are given is sufficiently long to be a representative cycle, but it may be safely asserted that a period of five years, however selected, is too short to form a safe foundation for a produce estimate for a circle or a tahsil, though it may give a fairly reliable result per acre cropped. The deficiency of the last 11 years must also be borne in mind in considering another important matter, the falling off in recent years in floods from the Landoha and other torrents, which the people ascribe to the stoppage of these torrents by embankments, but which may possibly be due in a large degree to the scanty rainfall of these years. This will be reverted to hereafter when the circle assessments are discussed.

6. The yields per acre adopted in the reports for the various crops are not based upon the results of experiments. This is not due to experiments having been neglected, for the Settlement Officer and his Assistant have devoted much care to this branch of their work, but owing to the abnormal harvests experienced most of the experiments have had to be rejected and the area shown in Statement XII as having been made the subject of experiments is too small to afford results of any value. Mr Gibson and Mr Boughey, however, have, working from the experience gained from experiments conducted by themselves, been able by inquiry from the people, and by comparison with the yields ascertained in neighbouring tracts, to formulate rates which may be characterized as full, though they are generally lower than the yields assumed by Mr Channing at the last settlement and are unquestionably fair to the people. The tract is, like the adjacent land in Alwar, a fertile one, and when the rainfall enables it to yield at all, it yields well. The outturn per acre is particularly good for gram and for cotton.

7. The scale of prices adopted in these two tahsils is the same as has been accepted for the Rewari and Palwal tahsils by Mr Douie as Settlement Commissioner. In Nuh and Firozpur which are more remote from the railway than

the rest of the district, a lower scale might have been expected, but it is vouched for by the assessing officers that the Zamindars get the same prices for their produce here as in the rest of the district. The rise in prices which has occurred since last settlement is referred to in paragraph 13 below.

8. From the assumed prices and yields applied to the assumed area is deduced the gross produce estimate for each circle. Before calculating the share of this which the landlord is entitled to receive as rent, the Settlement Officer has made the usual deductions on account of the crops which, although their value has been included in the total, are fed off in whole or part to the cattle. These deductions are very considerable in this tract, where cultivation has reached its limit and the margin available for grazing is very small; they have been very carefully thought out, and no objection can be taken to them. Nor need objection be taken to the value of the straw, which the landlord receives as rent, being written off, although theoretically half of it should be credited to the Government half of the net assets even if it is the case that the straw is not sold by the landlord but fed off to his cattle. Menials' dues are paid by the tenants from their share of the produce in both tahsils, and consequently no deduction has been made from the gross produce on this account. I have ascertained that the meaning of the remark (paragraph 31, Nuh report, paragraph 32, Ferozepur report) that allowance must be made for these dues in assessing is that Mr. Gibson thinks the liability for them would be thrown on the landlord, or at any rate shared, if there were a larger area held on rents in kind. This, however, is an assumption only, and would not warrant a reduction being made in the half assets estimate: it is merely a corollary of the general criticism that where the area held on rents in kind is small, the half assets estimate based on such rents must be viewed very guardedly. The allowance made for the patwaris having underestimated the area of failed crops in the two Bangar circles may be accepted. Both Mr. Gibson and Mr. Boughy in checking crop inspections in these circles have observed that the allowance given by the revenue patwaris is inadequate not only in the canal irrigated villages but also in those which are not commanded by the canal, the patwaris in these circles having acquired the system of the canal patwaris. The extent of the correction allowed on this account is a matter of conjecture only, but I believe it to be very near the mark. In the case of canal irrigated crops the landlord pays a share of certain cash expenses detailed in paragraph 34 of each report, and his expenditure on this account has rightly been deducted from the value of the produce.

9. The value of the gross produce available for division between landlord and tenant having thus been determined the proportion taken by the landlord as rent is set aside in Statement XIII as the owner's net assets, and one half of that as the theoretical Government share. As regards *nahri* crops this calculation has been made for each crop separately in consequence of the cash expenses shared by the landlord. The Settlement Officer in paragraph 34 of his report expresses his opinion that the proportion is higher for unirrigated land than would be given by the tenant if kind rents were more general than they are, but the half asset estimates as framed are in accordance with the existing practice, and may be accepted, subject to the general criticism referred to above, as guides in the few cases where kind rents are more generally paid than cash.

10. The usual comparison has been made for each tahsil* between the gross produce of food grains and the probable annual food consumption of the total population, rural and urban. The annual deficit works out to 12 per cent. of the food required for Ferozepur and 10 per cent. for Nuh. In view of the remarks in paragraphs 4 and 5 above on the average cropped area taken as the basis of the produce estimate, the wonder is that the apparent deficiency is not greater. The area is less than the average area of the last 21 years, and, though the population of these two tahsils were not distressed in the famine of 1896-97 and held out bravely in the second famine year of 1899-1900† there can be no doubt that grain had to be imported for food in these two years, and the average

* Paragraph 34, Nuh report, paragraph 39, Ferozepur report.

† Paragraph 54, Punjab Famine Report of 1899-97, and page 9, Volume V of the Report of 1899-1900.

produce for the whole period may actually have been little in excess of the local requirements and may even have been below it. But it is more probable that here, as elsewhere where similar estimates have been worked out the deficit is apparent only, and is a proof that the produce estimate has been, as it ought to be, based on rates of yields which are those of the average field in the average year, and therefore gives a result below the actual produce of all fields in a year of fair harvests. The tract is not well served by railways and it is consequently impossible to test the estimate by comparison with railway returns, but Mr Gibson is of opinion that in ordinary years there is no import of food-grains, and his conclusion may be accepted that, except in years of drought, the tract is self-supporting in respect of food and has a surplus produce of cotton and wheat for export.

11 Cash rents undoubtedly afford the better guide to assessment

Half asset estimate derived from cash rents

throughout the greater part of the tract. They are paid on even a larger area than appears in the returns, for the meaning of the remark at the top of page 26 of Mr Boughiey's report is that a certain area of land shown as cultivated by the owners is really held by them as tenants of others to whom they have mortgaged it by a form of deed not recognised by the Land Alienation Act, and who are therefore not recognised as mortgagees in our papers. Transactions of this sort are also referred to at the end of paragraph 16 of the Nuh report. Very great care has been exercised by the assessing officers in sifting the recorded rents and in rejecting those which are unsuitable as guides owing to their being rack rents or for other reasons, but a considerable area remains after this process (cf Statements XIV and XV) on which the rents paid indicate clearly the letting value, not only of nearly every circle as a whole, but also of the various classes of soil. The only matter in respect to which the estimates based on these are open to criticism is the allowance made on account of non-realization and cost of collection. The allowance of 5 per cent made on this account in the Rowari tahsil was based on the accounts of a Court of Wards' Estate, and similarly in Palwal the deduction of 12 per cent was justified by the books of the Skinner Estate. In the tahsils now under consideration returns of similar accuracy and importance have not been available, and yet for most of the circles the deductions made on this account are greater than those of Rewari and Palwal, being 30 per cent in the Dahar Khari, 25 per cent in the Nuh Dahar, 15 per cent in the Dahar Mittha, Chiknot and the two Bangar circles, 10 per cent in the Bhuder, and 5 per cent in Taoru. These allowances are liberal, and seeing that they are, to some extent at any rate, covered by the remissions granted under our system of land revenue collection, I think that the resulting half asset estimates based on cash rents may be accepted as very moderate ones. Only in two circles are they in excess of the corresponding estimates based on rent in kind, which have themselves been framed in a liberal manner, and on a contracted crop area, and in most circles they are much below them —

	Bangar Nuh	Bangar Firozpur	Dahar Nuh	Chiknot	Dahar Khari	Dahar Mittha	Taoru	Bhuder
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Half assets produce	1,51,408	1,11,586	1,26,093	16,188	46,775	53,579	59,900	55,650
Half cash rents	1,17,350	1,06,810	1,11,785	15,170	46,841	55,097	49,507	51,712

12 The most difficult question in the assessment of the two tahsils is

The four Dahar circles. Reasons assigned for proposing a reduction of assessment. I therefore take them first in discussing the proposed assessments. Their present assessments are given below*, with the percentage they bear to the half asset estimate now framed, and the assessments proposed by the Settlement Officer or Assistant Settlement Officer. In the Chiknot circle the half asset estimate is that based on rents in kind.

* From Statement XVI.

Name of Circle.	One-sixth of value of gross produce	Present revenue	Percentage on half assets	Revenue proposed by Settlement Officer	Percentage on half assets
	Rs.	Rs.		Rs.	
Dahar Mitha	47,600	47,276	85	43,245	82
Dahar Khari	41,635	37,411	80	33,911	77
Chaknot	14,400	14,131	87	12,503	82
Dahar Nah	1,85,968	1,61,251	90	95,872	81

A reduction is thus proposed in each case, and, while there are reasons applied to each circle for the Settlement Officer proposing this course and for arriving at the exact amount of reduction proposed, the main reasons are common to all, and it is conveniently so discussed in this paragraph. There has been a diminution in the area annually flooded by torrents or drainage from the hills, and this flood, if, however inadvisable it may have been, was always beneficial to the agriculture and allowed of a better class of crops being grown than can be produced with the aid of rainfall alone. The extent to which this has occurred is indicated by the figures in columns 7 and 8 on page 13 of the Pirogram report, but is a matter of inference only as regards the Nuh Dohar (paragraph 10 of that report). The figures in Statement X also bear witness to it, for they show that the falling off in the area cropped in the last year compared with the previous ten years is much more marked in the Rukhan in the Kharif, and the Rukhan is the more important harvest of the two on flooded lands. Owing partly to the deterioration of the Dohar circles in this respect, but still more, probably, to the long cycle of bad years, with their want of security and famine, the people have become impoverished, and have been driven to mortgage large areas of their land to provide themselves with food. With a more healthy population the result of bad years might have been different, but with the character of the Moosung such as it is (paragraphs 13 and 14, Pirogram report), a curiously mixture of thriftlessness and idleness, we cannot expect the result. They are the more likely to suffer from bad years because of the pressure of the population on the area of cultivation available. And they have little means. Manure is becoming very scarce; iron is scarce in the country; and the growing is barely sufficient to support the existing population and the cattle. Mr. Gibson thinks that even the most fertile soil in the district is now too poor only for the production of horse manure, and that the present state of affairs is due to the poverty of the people, who produce almost nothing but rice, and live on the 1 lb. 15 or 20 per cent. yield of the crop. He says that the people are generally ignorant of the value of manure, and that the Government should encourage them to use it. He also says that the Government should encourage them to use the manure of their own animals, and that the Government should encourage them to use the manure of their own animals.

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for Palwal was modified in Mr Douie's review, paragraph 7, but as to the reality of the rise, and especially in respect of cotton and wheat which are the chief marketable articles in the circles now under consideration, there can be no doubt, and in the forecast of the financial results of this settlement it was anticipated that the revenue might be enhanced 15 per cent on this account alone. The tenants who have to pay cash rents have to sell produce in order to pay them, and the figures on pages 26 and 32 respectively of the Nuh and Firozpur reports show that cash rents have gone up steadily, no doubt in response to the rise of prices. Mr. Gibson is right in saying that the rise is largely discounted by the fact that the revenue payers are peasant proprietors, and the remarks in paragraph 377 of the Settlement Manual are very pertinent in regard to this tract. But the improvement in resources due to rise in prices cannot be ignored altogether, especially when it is borne in mind that there is no separate tenant class in this tract, and the tenants are themselves proprietors who add to their assets by cultivating such land as they can get on rent from others. I may note that Mr. Gibson thinks that this circumstance tends to keep rents low, or at any rate fair, rather than high, because when a tenant has no land of his own he is at his landlord's mercy. It has also to be borne in mind that a number of the owners are sufficiently well off to be mortgagees themselves, and these draw rent from the mortgaged land. Then we have to bear in mind the manner in which the existing demand was arrived at, and the facility with which it was paid during the greater part of the period of the expiring settlement. The revenue assessed by Mr. Channing at the Second Regular Settlement was based on the experience of abnormally favourable years, and it was very soon put to the test by a series of bad seasons including the famine year of 1877-78, with the result that it was very carefully revised by Mr Wilson from village to village in the light of the more normal, or less favourable, years that had supervened. The resulting demand, which is practically that now in force, was admittedly paid without difficulty up till 1895 (paragraph 38 of the Firozpur report) and the suspensions which were granted in subsequent years, and which are conveniently tabulated on pages 39 and 50 of the two reports, were no more than might be expected to be required out of a fair assessment in abnormal years. The suspended revenue was for the most part collected without difficulty in the good years which intervened between the bad, and the amount which it was ultimately found necessary to remit was equivalent to half-a-year's revenue in the Nuh Dahar, and to rather more than that in the Dahar Khari and rather less in the Dahar Mitha, though in the small Chiknot circle it was equal to nearly two years' assessment. The danger of generalizing from the experience of a few good years was illustrated by Mr Channing's settlement, and there is at least a possibility of our being led now by the experience of a series of bad years to fix the Government demand at an unduly low pitch. Even the strongest argument for the reduction of assessment, the falling off in the flooded area, does not rest on entirely secure ground, for the falling off may be due as much to a prolonged deficiency of rainfall as to the action of embankments in stopping floods. And while the density of population must be admitted to be great (the figures are given in paragraph 2 above), it is less than the incidence of rural population per square mile of cultivated area in many districts of the province, and considerably less than in these districts which are generally conceded to be congested.

14 My opinion is, on a review of the circumstances telling for and against the proposed reductions, that there is on general grounds no case for a reduction. The fact that the present assessment forms a high percentage of the half asset estimates is not in itself an argument, especially when we consider how carefully these estimates have been framed so as to exclude any chance of their being unfair to the revenue payer. We cannot judge of an assessment by arithmetical rule, and when the question is whether to reduce or not, the main fact to be considered is how the assessment has worked. The existing revenue seems to have stood this test. The people, and they are evidently numerous, who take land on mortgage, find no difficulty in paying the revenue, and if those who have been driven to mortgage have found a difficulty, it is not because of the pressure of the revenue but because owing to large families and bad years, they find it hard to get a living at all. In dealing with the question of maintaining the

higher here than in the other circles and it amounts to 87 per cent of the half asset estimate, but I do not think it need be reduced. I would raise Mr. Gibson's *barani* rate to Re. 1-4-6 so as to obtain an assessment of Rs 14,066 for the portion of the circle under fixed assessment. The *abi* rates sufficiently high.*

18 It almost follows from the above that no change should be made

Area under fluctuating assessment in the Chiknot circle and the Nuh Dahar circle of fluctuating assessment in force in

the Kotla Jhal villages of the Chiknot and the Nuh Dahar circles. The system is described on pages 38 and 45 of the Nuh report and on page 63 of the Ferozpur report, and with reference to the remark at the end of paragraph 46 of the latter, Mr. Gibson informs me that he has no further report to make and that his proposals stand. I recommend that the rate of Rs. 2 per acre of matured crops be maintained in these villages, and that, as now, land which has paid for a Kharif crop should not be charged for a crop sown in the following Rabi. The villages in the Chiknot circle which are subject to this system should, I think, be transferred from the Ferozpur to the Nuh tahsil. Mr. Gibson agrees with me in this, and will submit proposals to that effect. I have also asked him to consider whether the whole of the Chiknot circle might not appropriately be transferred to the latter tahsil and merged in its Dahar circle

19 In the portion of the Nuh Dahar circle which is under a fixed

Nuh Dahar circle area under fixed assessment assessment, the area recorded as flooded

last settlement, the total of *dahar* and *abi* being nearly equal to the *dahar* area of settlement. Similarly, little change is shown in the area recorded as *chahi*, although 110 new masonry wells have been sunk during the term of settlement. The chief reason for the reduction proposed by Mr. Boughey is the large area under mortgage. The present demand is 90 per cent. of the half asset estimate, but the latter includes a deduction of 25 per cent. from the amount of cash rents to allow for non-realization. I would not increase the demand, but I think the present revenue may be maintained. To attain this result I would accept the *bhur* rate proposed by Mr. Boughey, and adopt Re. 1-8-0 as the rate for *chahi* and flooded land and Re. 1-5-0 as that for superior *barani* soil

20 The Taoru table land receives drainage from the hills which nearly

Circle Taoru. surround it, and has 13 per cent of its area protected by sweet-water wells.

There has been a slight increase in cultivation, and the *chahi* area has risen greatly, 74 new masonry wells having been constructed during the term of settlement in addition to 33 old wells repaired and brought into use. The state of mortgage is not serious, and the people are not in distress. The present demand is 74 per cent of the half asset estimate based on cash rents, which is the proper one to adopt for guidance in this circle. The remark on page 27 of Mr. Boughey's report, that cash rents are not common in Taoru scarcely expresses what is meant. Cash rents are common enough in the circle but Mr. Boughey thinks that although the best land is not given out on rent, the competition for the land that is so given out is very keen, and the rents run very high. For this reason he is rather disposed to distrust his rent estimate, and this may have influenced him in proposing the moderate enhancement of 14 per cent. on the present demand. The proposed demand, Rs 42,214, amounts to 85 per cent (and not 82 as given on page 44 of the report) of the half asset estimate of Rs 49,507, and we should not, I think, go higher, though this amount can safely be taken. The revenue rates proposed by the Assistant Settlement Officer are suitable

21 The strips of land forming the Bhuder circle are differently situated

Circle Bhuder. from the Taoru plateau, and the prevailing soil is the light sandy *bhur*. It has

22 per cent of its area protected by wells, and the *chahi* area has increased since last settlement, 122 new masonry wells having been sunk and 65 repaired. The

* Mr. Gibson, who has seen this review, writes — 'If the present assessment is maintained in this circle, I think it can only be successfully maintained if the proposal which I shall make of giving initial remissions (at any rate up to a certain percentage of the demand), instead of suspensions, be accepted.'

22 The following is the composition of the three canal irrigated circles of the district. —

of the district. —

1. The first part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them.

[illegible]

$\frac{d}{dt} \left(\frac{1}{2} m v^2 \right) = \frac{d}{dt} \left(\frac{1}{2} m \dot{x}^2 + \frac{1}{2} m \dot{y}^2 + \frac{1}{2} m \dot{z}^2 \right)$

From the percentage of half assets taken on *barani* and *bhur* soils it is clear that the revenue of the uncommanded villages will be maintained at a sufficiently high pitch. The pitch of the assessment on *nahri* land will be nearly the same as has been proposed by Mr Doue for Palwal. The assessment for the circle proposed by Mr Boughey, Rs 1,14,207, therefore appears to me to be suitable. If Mr Doue's recommendation in his Palwal review is accepted, that the *nahri* soil should be given a fixed assessment in its unirrigated aspect and that a fluctuating canal advantage revenue should be charged in addition on the land actually irrigated in each harvest, the fixed land revenue on *nahri* soil at Re 1-3-6 per acre, the *barani* rate approved above, will be Rs 28,364, as compared with Mr Boughey's proposed fixed assessment of Rs 39,278, so that to attain the latter pitch it is necessary that the canal advantage rate should yield Rs 10,209. This result would be given by applying a rate of 10 annas an acre to the average area annually irrigated, which is 17,675 acres according to the upper table on page 12 of the report, and 17,290 according to the lower. In view, however, of the fact that Mr Boughey felt himself limited, in proposing an assessment of a fixed nature, to a moderate enhancement only, I think that with a fluctuating assessment a rather larger increase can be taken and I propose that in this circle the rate of fluctuating assessment should be 11 annas an acre, which would yield an average of Rs 11,152. As contemplated by Mr Doue in his explanation of his proposed system in his reviews of the Karnal and Gohana reports, while the income from the rate should average 11 annas per acre for the circle, the actual rates framed for different villages may be greater or less than this as the Settlement Officer may consider appropriate, and the area under millets should be exempted from payment of the rate.

23 The difference between commanded and uncommanded villages is less

The Bangar circle of Firozpur

marked in the Firozpur Bangar, for Mr Gibson reports that the expiring

assessment is light for the circle as a whole. The large increase of wells has here also been confined to the uncommanded villages. The half asset estimate based on cash rents should in this circle be a more suitable guide to the assessment than the produce estimate. It is remarkable, however, that the rent should distinguish so little between the various classes of soil other than *khur* and from his remarks on the *barani* rate on page 57, Mr Gibson seems to have come to the conclusion that the process of correction of which the results are given in the table on page 32 of the report was carried too far in the direction of lowering the *chahi* and *nahri* rent rates. He has consequently, in his proposed revenue rates, proposed to take a much larger proportion of the half assets estimate in the case of these soils than in the case of *barani* and *bhur*, as the following table shows, thus giving a result of an opposite nature to that shown by the analysis above of the Nuh Bangar rates:—

| 1 | 2 | 3 | 4 |
|----------------|-----------------|-------------------------------------|------------------------------------|
| Soil | Half asset rate | Rate proposed by Settlement Officer | Percentage of column 3 on column 2 |
| | Rs a. p. | Rs a. p. | |
| Cnahi | 1 12 6 | 1 9 0 | 88 |
| Nahri | 1 12 6 | 1 9 0 | 88 |
| Barani | 1 9 6 | 1 4 0 | 78 |
| Bhur | 0 12 6 | 0 10 0 | 80 |

It is a question whether in these circumstances the produce estimate of Rs. 1,11,586 is not a more reliable guide than the cash rent estimate of Rs 1,06,810 for the circle (although in respect of differentiation between soils it goes no further than the latter), and whether the revenue should not be enhanced further than the Settlement Officer has proposed. If the difference of 5 annas

report and in paragraph 44 of the Nuh report. In regard to the rules for the annual assessment of *abiana* framed in paragraph 52 of the Firozpur report, it is sufficient to say at present that, with the modification to suit the Nuh tahsil proposed in paragraph 48 of Mr Boughey's report, they are generally suitable. The principles on which they have been framed appear to me to be sound, but they will have to be recast when the assessment of the Gurgaon tahsil is completed, and an opportunity will then occur of finally considering them before they are published under Section 74 of Punjab Act III of 1905

25. The following are the proposals which I put forward for the assessment of the various circles —

Results

| Circle | Present demand | REVENUE PROPOSED BY | | INCREASE OR DECREASE PROPOSED BY | |
|-----------------------|----------------|---------------------|-------------------------|----------------------------------|-------------------------|
| | | Settlement Officer | Settlement Commissioner | Settlement Officer | Settlement Commissioner |
| | Rs | Rs | Rs | Rs | Rs |
| Dahar Mitha | 47,276 | 45,348 | 47,276 | -1,928 | . |
| „ Khari | 87,411 | 35,911 | 37,411 | -1,500 | . |
| Chiknot fixed | 14,151 | 12,503 | 14,151 | -1,648 | |
| Bhader | 44,420 | 44,420 | 44,420 | | |
| Bangar { Fixed | 79,681 | 80,767 | 85,325 | +7,106 | +10,167 |
| „ { Fluctuating | | | 4,493 | | |
| Total Firozpur tahsil | 2,22,919 | 2,24,949 | 2,33,076 | +2,080 | +10,157 |
| Dahar | 1,01,251 | 95,672 | 1,01,251 | -5,579 | |
| Taoru | 36,501 | 42,214 | 42,214 | +5,713 | +5,713 |
| Bangar { Fixed | 1,00,360 | 1,14,207 | 1,03,299 | +13,847 | +15,091 |
| „ { Fluctuating | | | 12,152 | | |
| Total Nuh tahsil | 2,38,112 | 2,52,093 | 2,58,916 | +13,967 | +20,804 |

I have taken the present demand, and the Settlement Officer's proposed demand where he proposes no change, from Statement XVI, to secure uniformity; the above figures therefore differ to a small extent from those given in the body of the reports. The fluctuating assessments of the Kotla Jhil villages in the Chiknot and the Nuh Dahar circles and the *abiana* to be levied on the areas benefited by *bands*, are not shown in the above table, as the amounts will vary so from year to year that it is difficult to frame accurate estimates. It will be necessary for the Settlement Officer, however, to frame forecasts of the income from each before the new assessments are introduced. And he has also to prepare an estimate of the portion of the fixed assessment which should be credited to the *bands*.

26 It has been suggested above that the Chiknot circle might be

Changes in assessment circles and classification of soils

transferred to the Nuh tahsil. The Settlement Officer now thinks that the division of the Dahar tract of Firozpur into two was unnecessary for assessment purposes, and I agree with him and am of opinion that the Dahar Khari and Dahar Mitha should in future be treated as one circle. The minute sub-division of superior *barani* soil into the three classes of *chiknot*, *narnot* and *blur*, which was adopted at the beginning of the settlement, was found to be superfluous for the purposes of the settlement, as will have been observed from the rates proposed in the various circles, and under Mr Douie's orders it has been arranged to show them under one heading in future, and this has been provided for in the village note-book forms.

27. The subject of protective leases for wells in this district is being discussed in separate correspondence with the Financial Commissioner. The general rules for remission on wells falling out of use should be extended to the taluk; the system of distribution of the assessment over wells has been touched on in paragraph 15 above. The rules referred to in paragraph 51 may be approved, as recommended by Mr. Davis in paragraph 12 of his Palwal review.

28. The new demand should be introduced with effect from the Kharif harvest of 1908. The cesses should be as at present (paragraph 54 of the Settlement Officer's report). The term of Settlement will be determined later for the district as a whole. The question of the remission of the land revenue at present held under suspension should be referred separately in accordance with the orders of Government on the proposals in that regard for the Rawari taluk.

29. Mr. Gibson's report is a very thorough piece of work and it bears marks of his strong sympathy with the people. Mr. Boughey has carefully followed the Settlement Officer's methods but his report shows originality also, and is a good one.

Dated 28th January, 1908

A. H. DIACK.

APPENDIX.

In order to work out a soil rate for the irrigated soils (*chahi* and *nahri*) in the Bangar circle I have adopted as far as possible the same calculation as that given in paragraph 36 of the Rewari report. For the *chahi* rate I have taken the areas in Statement III. This gives a pakka *chahi* area of 4,868 acres of which only 2,187 acres are annually irrigated. The remaining 2,681 acres are sown with *barani* crops. In the Rewari circle with a light soil Mr. Gibson could fairly assume that either *jowar* or *bajra* would be grown. I do not think it would be safe to make this assumption in the Bangar circle, where *rabi* crops are grown *barani* on well lands, and I have accordingly taken the rate per acre matured given in column 33 of Statement XIII. In paragraph 27 I have assumed an unirrigated failed area of 28 per cent. This is nearer $\frac{1}{2}$ than $\frac{1}{3}$, but for the purposes of a calculation such as this I prefer to regard the figure 28 as a minimum and I therefore assume that only $\frac{2}{3}$ of the *barani* area matures. The calculation is therefore —

$$\frac{2187 \times \text{Rs. } 2-8-0 + 2681 \times \frac{1}{3} \times \text{Rs. } 1-13-0}{4868} = 1-12-3 \text{ per acre}$$

For the *nahri* area there is no statement corresponding to Statement III and I have therefore taken the average area irrigated as shown in paragraph 11, while for the whole *nahri* area I have been obliged to take the figures in Statement II, which are those for the year 1905-06. This is not very satisfactory, but it is, I think, the nearest approach to accuracy which we can get. The calculation in this case is $\frac{17290 \times \text{Rs. } 2-9-0 + 5046 \times \frac{1}{3} \times 1-18-0}{23236} = 2-3-5$ per acre. In each case the irrigation rate is that shown in the table given in paragraph 34. The following table compares these rates with the cash rents and my proposals —

| | Chahi | | | Nahri | | | |
|-------------------------|-------|----|---|-------|----|---|----------|
| | Rs | a | p | Rs | a | p | |
| Soil rate by land rents | 1 | 12 | 3 | 2 | 3 | 5 | |
| Cash rent rates | 1 | 13 | 9 | 2 | 4 | 0 | Assu med |
| Proposed rates | 1 | 8 | 0 | 1 | 11 | 0 | 691 |

The two *chahi* rates agree very closely, and so do the *nahri* rates, but the comparison there is of course vitiated by the fact that the rate shown is an assumed and not an actual rent, and also because the calculation is not quite so accurate as that for the *chahi*, so I think we may say that the difference would not be strikingly great and that consequently correspondence is there, too, fairly close.

18th December 1907.

G. M. BOUGHEY.

ASSESSMENT REPORT

OF THE

FIROZPUR JHIRKA TAHSIL

OF THE

GURGAON DISTRICT.

PART I.—PRELIMINARY.

CHAPTER I.—PHYSICAL DESCRIPTION.

1. The Firozpur Tahsil is the most southern of the tahsils of the district: it is bounded on the north and east by the Nuh and Palwal Tahsils, on the south by the Mathra District of the United Provinces and by the State of Bhawalpur, and on the south-west and west by the State of Alwar. The area of the tahsil is 316 square miles, and the population at the Census of 1901 was 1,22,257. It contains 244 estates as compared with 229 at last settlement, 15 villages having been transferred from the Nuh Tahsil at the end of the settlement operations.

2. The tahsil is divided into two parts by a spur of the Aravalli range which traverses its centre in an unbroken line from south to north. Between this and another nearly parallel spur of the same range, which forms the western boundary of the tahsil, lies the Firozpur valley, famous from the earliest times for its fertility and for the beauty of its cultivation.

The lands lying under the hills are sandy and very inferior, but those in the centre of the valley are low and are flooded during the rainy season by water from the Landohi stream which enters the south-west corner of the tahsil from the Alwar State and by numerous torrents flowing from the hills which enclose the valley on either side. The prosperity of the part of the tahsil is mainly on regular flooding from the Landohi, which brings down a most fertile soil and causes the land which it floods to grow a succession of heavy crops of wheat. The smaller torrents deposit sand, and their water is not so good as that of the Landohi.

As the stream rises in Alwar and enters a large area in the Bharatpur Tahsil of that State before entering the Firozpur Tahsil, considerable flooding has always been experienced in maintaining fairly the productive value of the Alwar and Bharatpur lands here.

Full details of the arrangements made for the settlement of the tahsil are given in Section III of the General Settlement Report, and the general character of the subject was formulated in the Periodical Report No. 7, 1885, dated 1st May 1887, from the Settlement Secretary to the Government of the United Provinces to the Government of India. The following are the main points of the settlement of the tahsil:—The tahsil was divided into 100 villages, each of which was divided into 100 plots, and the total area was 1,22,257 acres. The tahsil was divided into 100 villages, each of which was divided into 100 plots, and the total area was 1,22,257 acres.

The tahsil was divided into 100 villages, each of which was divided into 100 plots, and the total area was 1,22,257 acres. The tahsil was divided into 100 villages, each of which was divided into 100 plots, and the total area was 1,22,257 acres.

" It then enters the Ramgarh Tahsil, flowing at first due south under the hills to Bandohi. At Kharkhari it is joined by the drainage of the considerable valley formed by what has been called the Landoha range. From this point the stream ran originally due east to Naugaun, and thence north-east into the Firozpur valley which thus got most of the water.

" The Jats when they held sway over this tract towards the end of last century (see page 200, Gurgaon Settlement Report) made a large earthen embankment at this point, which diverted the water to the south and then by a semi-circular sweep brought it back to rejoin its old channel near Naugaun; but before reaching this point the Jats constructed another embankment across the new channel at Karaoh, which gave them the power of diverting the supply through the hills at Karaoh to the south-east of the Ramgarh Tahsil, or of turning it north through the old channel into Firozpur. The result of this measure was to considerably extend the irrigation in the Ramgarh villages and reduce the supply for Firozpur.

" No difficulty arose as long as both Firozpur and Ramgarh remained under Jat rule, but immediately they came under rival and separate interests, disputes began and continued till the Settlement of the Gurgaon District in 1877, when a joint decision for the future distribution of the water was arrived at by Mr. Channing, the Settlement Officer of Gurgaon, and Major Cadell, Political Agent of Alwar. This was sanctioned in the Punjab Government letter No 1639, dated 1st September 1877; and as the dispute may crop up again, the understanding come to may be explained here by reference to the attached plan.

" (1). No obstruction is to be placed by Alwar in the channel D-D through which the water passes on to Firozpur.

" (2). The Jat Bund No. 2 is to be maintained by Alwar so as to prevent in all seasons any portion of the stream passing to the east at that point through the channel C-C.

" (3). A small masonry dam has been constructed F at the mouth of the channel E-E (through which the stream could formerly be diverted south-east) 2 feet higher than the level of the main channel at the point marked G, which is also defined by a masonry floor, so that the stream should ordinarily follow the channel D-D and thus re-enter its old channel north-east to Firozpur instead of being diverted south-east to Ramgarh.

" (4) The Gurgaon authorities to have right of inspection so as to assure themselves of the observance of the arrangement arrived at.

" I have more than once inspected the place, and am satisfied that in the working of the above arrangements the Ramgarh villages have not suffered. At present more water seems to find its way through the channel E-E than through D-D, and there is also sometimes a spill through the embankment C-C by means of a sluice provided for the purpose. The latter, however, seems a precaution necessary for the safety of the "bund."

" The value of the Landoha, from an Alwar point of view, depends on the maintenance of the Landoha Jat Bund No. 1 at Kharkhari opposite the gap in the hills to prevent the stream breaching the banks and taking a direct course east to Naugaun and Firozpur through its old channel. Accordingly, of recent years the embankment known as the Atria Bund has been much strengthened and extended north and south, parallel to the hills, at a cost of over Rs 76,000 and is now $6\frac{1}{2}$ miles long, of which 4,059 yards are faced with masonry. Notwithstanding these measures, in seasons of high flood the water escapes round the northern extremity or through the outlets in the masonry embankment towards Akhlmpur, Mubarakpur, and Naugaun, where they rejoin the channel D-D."

It is difficult to ensure the maintenance of the masonry wall at F. When I inspected this point of the works last April, I found the wall breached, and this was the case in 1902 when it was inspected by the District Engineer of Gurgaon under the orders of the Deputy Commissioner. Instead of seeing that the works were inspected regularly every year the Gurgaon authorities have very rarely exercised their right of inspection, and the local Tahsildar has generally been ignorant of the fact that there was anything for him to inspect.

The important fact from the Ferozpur point of view, is the recent lengthening and strengthening of the Atrra Band, which instead of being a low earthen "dhol" as at settlement is now a dam 6½ miles long faced throughout half its length with masonry. This alteration which was completed I believe in 1897 was first brought to the notice of the Deputy Commissioner, Gurgaon, through a visit paid to the spot in 1902 by Mr. Macgregor, District Engineer. Extracts from the correspondence which ensued between the Political Agent, Alwar, and the Deputy Commissioner, Gurgaon, will be found at the end of this report. The Deputy Commissioner apparently acquiesced in the view taken by the Alwar authorities, and no further representation was made.

As since the commencement of the settlement operations numerous petitions have been presented by Gurgaon zamindars against the new bund, to the construction of which they attribute the almost total cessation of flooding since 1897, I inspected the bund on August 11th in company with the Chief Revenue Officer of the Alwar State. I rode along the bund from its southern extremity opposite Bandoli up to the opening in front of Kharkhari where the small earthen bund shown in Mr. Channing's map used to be. For the first mile the bund is of earth only, thence onwards up to Kharkhari, and for some distance north of Kharkhari, the inner face of the bund is strengthened with a strong masonry wall. Near Kharkhari there are a number of masonry outlets, which when the floods run very high allow some of the water to escape over into the old channel, and thence due east to Naugaon. No one in Alwar seems to know when the original Atria Bund, shown in Mr. Channing's map, was lengthened, but it must have been done gradually after last settlement, as from papers which I was shown in Alwar it is clear that what was done in 1892 when Mr. Macdonald, the then State Engineer, began the work which has given rise to the present enquiry, was to strengthen and improve what already existed.

After reading the report of Mr. McGregor and from information received from my own subordinates, I went to the head expecting to find that the extension to far south of the original head had driven the Landohs out of the course marked on Mr. Channing's map and caused it to flow further south before reaching its old course below Biya, thereby injuriously affecting the rights of Firozpur. I do not, however, think that this is the case. As far as I can judge, without seeing the stream actually in flood, its present course is much the same as indicated by Mr. Channing. To clear up the point the Alwar authorities have kindly consented to have a survey of the present channel made, and I am in correspondence with them on one or two minor points connected with the extension of the head. The result of these enquiries will, if sufficiently important, be reported separately, but I do not anticipate that I shall have anything to add to the opinion which I have just expressed. The stream is being very carefully watched, and if it comes down in flood during the present rainy season, it should be possible to come to a definite conclusion. There can be no doubt that owing to the extension of the Alwar head to the present distance there has been a considerable increase of flood in Firozpur. In the past a large part of the flood water which used to flow in the old channel has been diverted down the old channel east to Narni and the Firozpur Tahsil and have escaped down the old channel east to Narni and the Firozpur Tahsil. The object of the extension of the head is to prevent this and it cannot now be denied that it has succeeded in doing so with fair regularity. It is not, however, a permanent solution of the problem. The extension of the head to the present distance has not increased the area of the flood plain in Firozpur except in the extreme flood season. The extension of the head to the present distance has not increased the area of the flood plain in Firozpur except in the extreme flood season. The extension of the head to the present distance has not increased the area of the flood plain in Firozpur except in the extreme flood season.

rain falls the Firozpur Tahsil will receive a fair amount of flooding, and more than this cannot be expected. The present rains have up to the time of writing been excellent, but they have fallen in short showers, and so far three inches is the most that has fallen at one time in the Landoha catchment area. Nothing less than 5 or 6 inches is sufficient to bring the Landoha floods into the Firozpur valley.

Since last settlement there has been correspondence with Alwar about the obstruction of a small stream called the Thek Nala, which eventually flows into Gurgaon. A satisfactory arrangement was come to which is at present properly maintained. Its future maintenance should be watched together with the arrangements sanctioned in connection with the Landoha.

After it reaches the Firozpur Tahsil the Landoha is joined by a number of smaller streams.

The largest of these—"the Tirbain"—rises in Bhartpur territory, flows through Alwar and thence into the Firozpur Tahsil where it joins the Landoha at Doha a few miles from the southern boundary of the tahsil. The other streams are small hill torrents which flow from the hills on each side of the valley. The most important are on the west, the Bhond, the Jhir which rises just above the headquarters town of the tahsil and gives the town its name of Firozpur Jhirka, and the Balauj on the east, the Ghata and the Darur are the chief streams. All these torrents, except the Balauj, flow down into the centre of the valley and eventually join the Landoha, swelling its floods, but they also bring down sand from the inferior bhur lands lying under the hill sides and do a serious amount of damage en route. The steps taken to dam or divert the most destructive of these streams will be described in the paragraph on bunds.

The slope of the valley is from south to north and the accumulated water of the Landoha and of the local hill torrents drained formerly into a deep depression called the Kotla Jhil which is situated on the north-west boundary of the tahsil, lying partly in Firozpur and partly in the adjoining tahsil of Nuh. In years of heavy rainfall this basin which received also the drainage of the whole Nuh and part of the Gurgaon Tahsils was submerged for long periods, and early in the history of the British administration of the district steps were taken to protect and drain it. The protective works and their result will be described in the paragraph on bunds.

Under the eastern side of the central range of hills is a strip of inferior sandy soil similar to that on the west. It is much cut up by ravines and the Darur, which flows east as well as west of the central range, does considerable damage. This belt of sand ends in a depression or drainage channel which enters from the Nuh Tahsil at Shakhrawa and carries off the drainage from the hills (and in years of exceptionally heavy rainfall from the Nuh Tahsil) past Lohunga Kalan into the Bhartpur State.

Beyond this depression is a high-lying plain of good, firm loam which is a continuation of the great plain of loam characterising the Bangar circles of the Palwal and Nuh Tahsils. Here and there it is broken up by detached hills, but in the main it is level, and well adapted to canal irrigation which was introduced in 1875 from the Agra Canal.

3 With so many hills and hill streams (and outside but influencing)

Bunds and Drainage Canals
(a) Landoha Bunds

the tahsil it is obvious that the control of their drainage water is of considerable importance, and a number of bunds have been constructed with this object. I will first describe the scheme of bunds which affect the distribution of the Landoha floods after they reach this tahsil. These are not District Board bunds, having been constructed by or at the expense of the zamindars, and their sole object is to utilise to the best advantage the Landoha floods. The three most important are Kanmarda, Madapur and Nagh, which are mentioned in section 303 of the Gurgaon Settlement Report, and are notified under Schedule II of Act III of 1905 (Punjab Minor Canals Act).

Kanmarda—This bund is situated close to the eastern boundary of the town of Firozpur Jhirka. It holds up the floods and forces them to spread over the lands of Kanmarda and Bilakpur before resuming their normal course.

Madapur and Nagli—These are important bunds as their object is to divide the floods at Nagli and send half the water in a north-easterly direction, thereby flooding the land of 17 villages which but for the action of these bunds would receive no flooding at all. Mr. Channing's advice at the end of paragraph 303 has not been carried out. The bunds have not been carefully maintained and inspected, all are breached, and in 1899 it was discovered that the Talukdar did not know of their existence. The Madapur and Nagli Bunds broke in 1896-97, but as the Landoha did not come down in flood again until 1904, not much harm has been done. I have applied separately to be permitted to take action under section 52 of the Minor Canals Act in respect of these bunds. If the repair is promptly undertaken it will be possible to judge of the result before the end of settlement.

The above three bunds are the only bunds on the Landoha mentioned by Mr. Channing, but a number of others exist, which were, presumably, not considered of sufficient importance to mention. Most of them were in existence at last settlement, and are mentioned in the village administration papers; they are generally low embankments of earth which break when heavy floods come. As these village bunds lead to constant disputes and as it is desirable that the Collector should adjudicate on these disputes and prevent fresh ones from arising, I have proposed separately that Government should take action under section 52 of the Minor Canals Act, and I do not propose to deal further with these bunds here.

The remaining bunds are all under the control of the District Board and are notified under Schedule I of Act III of 1905. They may be divided into two classes—A, bunds which form part of a general district drainage system; B, isolated bunds designed to check floods from hill torrents.

A. *Kotha Bund*—This important bund takes off from the left bank of the source of the Bilauy and consists of a canal on the upper stream and a bund which runs on the downstream. After flowing a north-westerly direction for 12 miles it joins the Chandani Drain in the Noh Taluk and thence on to the sea. It was originally constructed by the British (afterwards Sir Henry Darnley) and its object was, and is, to divert the floods of the Landoha, Bilauy and other small streams from the Kotha basin. The object was not actually attained until 1875-6 when the embankment was cut off on the right bank of the Chandani Drain. Since then the floods of the Bilauy and other small streams have been cut off from access to the Kotha basin, and are sent into the Noh Taluk and thence on to the sea. The bunds on the upstream of the Kotha Bund have been arranged to be, and are, in a good state of repair. It is probable that the Landoha Bunds will be in a good state of repair in the future.

- (1) Protection of the Kotha Bund from floods.
- (2) Protection from floods of the bunds on the upstream of the Kotha Bund.
- (3) Maintenance of the bunds on the upstream of the Kotha Bund.

The following are the names of the bunds on the upstream of the Kotha Bund—

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- (2) Bund at the source of the Bilauy.
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is serious Mr Machonochie (*vide* paragraph 7 of his printed note on this bund) recognised this defect and to remedy it had a sluice constructed at Hasanpur to allow the flood water to pass inside the bund, but the volume of water collected by the bund has been too small of recent years to permit of this remedy being effective.

On the whole the Kotla Bund is a valuable work, and I do not think that any idea of abandoning it can be entertained. It is true that owing to the network of bunds constructed in the Nuh Tahsil and to the recent dry seasons the Kotla Jhil instead of being submerged has lately suffered from a lack of moisture, but this is an abnormal state of things, and in years of good rainfall the Jhil will probably still require the protection which this bund affords.

Manu—This is a small bund inside the Kotla Bund which was constructed by Mr Machonochie in 1890 to hold up for the benefit of Manu village any water turned inside the Kotla Bund through the Hasanpur sluice (*vide supra*) and to prevent it pouring direct into the Jhil. As Mr Halifax has recorded in his printed note, this bund worked well until 1897, but since then no water has passed through the Hasanpur sluice. For reasons which I have already recorded I do not think that in future flood water will ever reach this bund, but it had better be retained by the District Board for the present until the effect of a return of normal seasons has been ascertained.

The drainage of the Firozpur valley and of the Nuh Tahsil, diverted from the Kotla Jhil, collects at Sangel and Lohinga Valley Canal and Shakrawa and Shah Choka Bunds. Upna in the Nuh Tahsil. The only escape for this water is into the Firozpur Tahsil down the depression between Shakrawa and Lohinga Kalan mentioned in paragraph 2. A shallow canal has been in existence for many years which facilitates the passage of the water, and in years of exceptionally heavy rainfall a large volume of water passes down it. Mr Channing describes, in paragraph 9 of the Assessment Report of the Firozpur Tahsil, the arrangements which were in force at last settlement and notes that the overflow from the Nuh Tahsil is of very rare occurrence. At last settlement the canal was in charge of the Canal Department, and a water-rate of annas 4 per pacca bigha was collected on all flooded land but the Canal Department abandoned charge of the work soon after last settlement. The water after flowing down the Lohinga valley eventually passed off into the Bharatpur State, but much of it was left behind in the pools and hollows round Lohinga. To drain these pools and to better utilise the supply of water two bunds were erected by Mr Machonochie across the canal at Shakrawa and Shah Choka in 1887 and 1888, respectively. They were formed by raising the level of two District Board roads which cross the canal at these points and they thus served a double purpose, raising above flood level roads which had previously been impassable for months in the rainy season and causing the flood-water to spread over a much larger area than was formerly irrigated. Each bund is supplied with a sluice, which is opened as soon the water collects, and allows it to pass on down the canal. Since the bunds were constructed there has, I believe, only twice been an overflow, and no water has come down since 1897. As it is improbable that the Landoha floods will ever again reach the Nuh Tahsil, and as the surplus water of the Nuh Tahsil has been decreased by the network of bunds constructed there since 1885 an overflow from that tahsil will probably be an even rarer occurrence than before, and it would hardly be worthwhile to maintain these bunds as irrigation works, but as they are useful as roads they should be maintained.

B The above are the only District Board bunds in this tahsil which form part of the district drainage scheme.

The remainder are isolated bunds constructed to control the destructive action of hill torrents.

Ghata Shamsabad Bund—The stream, which issues from the hills at Ghata Shamsabad and has a fairly large catchment area, pours sand over the lands of Kanmaida, Hirwar, Madapur, Allpur and Tigra. The damage is very serious and to check it a masonry bund was constructed by Mr Machonochie in 1890 at the point where the stream leaves the

hills, but the force of the stream at this point is tremendous, and the bund was breached in 1903-04 and has not since been repaired. The bunding of this stream is a most necessary work and should be undertaken as soon as possible. A bund would probably be more effective a little lower down stream than the spot previously selected.

Rawa Bund.—The Daur stream mentioned in paragraph 2 rises a few miles north of Ghata Shamsabad. The branch which flows west of the central range was formerly very destructive, and caused great damage to Ranial, Ranial, Dughri, Hamrapur, and one or two other villages. On account of the damage reductions of land revenue were necessary at last settlement and at the revision. An embankment was devised by Mr. Macdonald at Rawa where the water issues from the hills, and was completed in 1892. The work seems impregnable and has never been breached, with the result that the portion of the villages formerly denuded has greatly improved, and it has been possible to re-assign most of the revenue, remitted. The Rawa Bund is a most useful work and should be carefully maintained. Like the Ghata Bund it is purely protective and there is no possible irrigation from it. Its value lies in the improvement which it has effected in the soil of the estates which it benefits.

Dargol Bund.—This bund is on the branch of the Daur which flows east of the central range of hills towards the Lobingra valley. It is a naturally good one, as the bund completely blocks the path of the stream, but at the point where the bund is constructed, passes between two gullies. The bund benefits the village of Dargol, and helps to drain the Lobingra valley, but it was breached in 1896-97 and has not since been repaired. The Daur does a great deal of damage before it reaches Dargol, and a dam nearer the source would be more beneficial, if it could be successfully constructed. I do not think the existing bund ought to be repaired, unless it will be directly profitable, as it is essentially a "protective" and not a "productive" work. If constructed nearer the source of the Daur, it would be "productive."

Hitherto a fluctuating water-advantage rate (abv) has been levied on all land flooded or overflowed by the patwaris as flooded from their lands, and the rates formerly levied and now sanctioned under No. 18, dated 19th March, 1903, from the Chief Secretary to Government, Punjab, to the District Secretary to Financial Commission, Punjab, are as follows:—

| 1 | 2 | 3 | |
|------|-----------------|------|------|
| | | 1st | 2nd |
| Land | From 1st to 2nd | | |
| | | | |
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| 19th | 19th | 19th | 19th |
| 20th | 20th | 20th | 20th |

recorded as irrigated, and the abiana levied on the remaining five bunds since 1891-92 —

| 1 | 2 | | 3 | | 4 | | 5 | | | 6 | |
|---------|-------|---------|-------|---------|----------|--------|------------|--------|------|----------|----------|
| Year | KOTLA | | MAU | | SHAKRAWA | | SHAH CHOKA | | | DANGOCHA | |
| | Area | Demand. | Area | Demand. | Area | Demand | Area | Demand | n p | Area | Demand |
| | Acres | Rs | Acres | Rs | Acres | Rs | Acres | Rs | a p | Acres | Rs. a p |
| 1891-92 | | 3,436 | | | | | | | | | |
| 1892-93 | 862 | 539 | 29 | 24 | | | | | | 28 | 44 11 6 |
| 1893-94 | 8,723 | 5,499 | 139 | 112 | 923 | 739 | 3,237 | 2,753 | 0 0 | 118 | 188 14 6 |
| 1894-95 | 8,716 | 5,226 | 162 | 124 | 1,017 | 772 | 3,524 | 2,753 | 0 0 | 94 | 144 0 0 |
| 1895-96 | 6,920 | 4,102 | 302 | 230 | 892 | 688 | 3,455 | 2,593 | 0 0 | 68 | 103 0 0 |
| 1896-97 | 664 | 415 | 33 | 27 | 296 | 237 | 1,077 | 961 | 14 9 | 50 | 80 0 0 |
| 1897-98 | 81 | 17 | | | | | | | | | |
| 1898-99 | 396 | 82 | | | | | | | | | |
| 1899-00 | 165 | 34 | | | | | | | | | |
| 1900-01 | 3,029 | 631 | | | | | | | | | |
| 1901-02 | 361 | 75 | | | | | | | | | |
| 1902-03 | 3,755 | 782 | | | | | | | | | |
| 1903-04 | | | | | | | | | | | |
| 1904-05 | 976 | 187 | | | | | | | | | |
| 1905-06 | 1,004 | 192 | | | | | | | | | |
| 1906-07 | 186 | 36 | | | | | | | | | |

* Not available

The above statement shews that since 1897 there has been no flooding except on the Kotla Bund and even on that bund the flooded area has largely decreased. This is due partly to the dry seasons, but partly, as I have already pointed out, to the fact that the Landoha floods never now reach the north of the Ferozpur valley, and so much of the decrease as is due to the latter cause is likely to be permanent. The present rates of abiana and the method of assessing irrigation from bunds will be discussed in the chapter on assessment.

4. At last settlement Mr Channing constituted 5 Assessment circles.

Assessment Circle

The highlying loam plain to the east formed one circle called Punahana. The belts of blur on both sides of the central range and east of the western range formed a second circle called Bhnder, while three circles were formed out of the valley proper. The southern portion of the valley which was flooded by the Landoha in years of ordinary rainfall was formed into a separate circle under the name of Landoha. The central portion which was not reached by the Landoha except in years of exceptionally heavy rainfall, but which benefited by drainage water from the land to the south and from the hills on either side was Mr Channing's Mandikhera circle, while the lowlying area in the north of the tahsil, characterised by the presence of a hard black clay soil and by the saltiness of the subsoil water formed a third circle called Chknot. As already noted 15 villages were transferred from the Nuh Tahsil at the end of last settlement.

The preliminary report on Assessment Circles was submitted by Mr. Hamilton, and his proposals were sanctioned in No. 3163, dated 6th September 1904, from the Settlement Commissioner.

The former five circles were reduced to four. The Punahana circle was retained under the name of Bangar and now includes also 14 out of the 15 villages transferred from Nuh. The characteristic of this circle is the prevalence of the hard dry loam which resembles but is inferior to the loam of the Palwal Tahsil. It is capable of producing excellent crops when irrigated or when moistened by abundant rain, but it requires more rain than it usually receives. Sixteen per cent of the cultivated area of this circle is now canal irrigated and further extensions are possible. This is fortunate as well irrigation is very inferior, the wells being generally salt and being only used in dry seasons, as

the salt water if applied regularly to the hard soil, which in the case of the well lands is often clay, would cause it to seriously deteriorate.

The Bhuder Circle was maintained under the same name.

The characteristic feature of this circle is the inferior sandy soil, which near the hills is hardly worth cultivating, but improves further from the hills and often ends in good low-lying loam or clay. The inferiority of the *barani* soil and the comparative absence of natural flooding makes well-irrigation compulsory, and the wells are regularly used. The water is almost invariably sweet, though those wells which are in close proximity to the hills are generally rather deep.

The three former circles of the valley were combined into two on the basis of the quality of the well water. In the former Landoha Circle the well-water is generally sweet, the wells are regularly used and the irrigation is the best in the tahsil. In the old Mandikhara Circle there is less flooding from the Landoha, and the wells are consequently salt, though the *barani* soil is as good as, if not better, than in the Landoha Circle, while in the Chiknot Circle the subsoil water is so salt that hardly any irrigation is possible at all. The Mandikhara and Chiknot Circles were, therefore, combined into one circle under the name of Dahar Khari, while the Landoha Circle was kept as a separate circle and called Dahar Mitha.

I regret to say that after carefully considering the question, I have been unable to maintain the Dahar Khari Circle in the form proposed by Mr. Hamilton. The clubbing together of the old Mandikhara and Chiknot Circles is from the point of view of Assessment statistics and future revenue management unworkable. It is true that the water in both is salt and that the predominant soil is chiknot, which were Mr. Hamilton's reasons for combining Mr. Chamberlain's two northern circles and keeping them separate from the Landoha Circle, but in the old Mandikhara Circle the soil though chiknot is the best in the district, while in the Chiknot Circle it is almost the worst.

I quote from section 61, paragraph 7 of Mr. Wilson's Revision Report the following remarks—

"It is true that the original Landoha floods do not often reach farther north than Sakras, but the Landoha supplies only a part of the irrigation which benefits the Mandikhara villages. Even should none of the Landoha floods reach so far, the rainfall of the whole Bhujar Valley, an area of 100 square miles, must (so much of it as does not sink into the ground) flow over Chik Mandikhara on its way to the low country about Sakras and Bhujar; and so the greater part of Chik Mandikhara is well-irrigated, the soil even when not directly flooded seems to be kept moist or perhaps even from the other parts of the valley and return to surface from drainage, so that even in the worst years there is some *barani* water taken in, and a crop of *Mul* of the kind entered as *barani* is a good, not a valuable soil."

This is an excellent description of the water supply in the district, and it is only logical to conclude that the Mandikhara Circle should be maintained as a separate circle, and that the Chiknot Circle should be combined with the Landoha Circle. The only objection to this is that the water in the Chiknot Circle is salt, and that the water in the Landoha Circle is sweet. But the water in the Chiknot Circle is only salt when it is used for irrigation, and it is sweet when it is used for drinking. The water in the Landoha Circle is sweet when it is used for irrigation, and it is salt when it is used for drinking. The water in the Chiknot Circle is only salt when it is used for irrigation, and it is sweet when it is used for drinking. The water in the Landoha Circle is sweet when it is used for irrigation, and it is salt when it is used for drinking.

The water in the Chiknot Circle is only salt when it is used for irrigation, and it is sweet when it is used for drinking. The water in the Landoha Circle is sweet when it is used for irrigation, and it is salt when it is used for drinking. The water in the Chiknot Circle is only salt when it is used for irrigation, and it is sweet when it is used for drinking. The water in the Landoha Circle is sweet when it is used for irrigation, and it is salt when it is used for drinking.

Dahar Khari Circle. I regret that this change in the sanctioned circles has not been previously reported for orders, but it was only recently decided on, and I have not delayed this report on account of the change. I think my proposals will be found to be justified by the assessment statistics—specially Statement, X and XV, and for the purposes of future revenue management I consider that they are absolutely necessary.

Soils,

5 The classes of soil recorded at last settlement were as follows —

| | | |
|---------|----|-----------------------------------------------------------------------|
| Chahi | . | Land irrigated from wells |
| Dahri | .. | Land which received the drainage from the hills or higher-lying lands |
| Chiknot | .. | Hard clay soil |
| Narmot | | Hard loam soil |
| Magda | . | Light loam soil |
| Bhur | , | Sandy soil |

There were, of course, in addition the usual classes of uncultivated lands.

The classification of soils sanctioned for this settlement is as follows. —

(1) *Chahi* —All land regularly irrigated from a well, whether the well is constructed with masonry or not, and whether it is worked by bullocks or by lift (*dhenkli*). Land will be regarded as regularly irrigated if it has received water in two different years in the period 1898-99 to 1902-03, provided the means of irrigation are still in existence.

(2) *Nahri* —All land regularly irrigated from the Agra Canal. Land will be regarded as regularly irrigated if it has received canal water in any two years from 1898-99 to 1902-03, or is irrigated at the time of measurement.

(3) *Chahi-Nahri* —All land which is regularly irrigated both from the canal and from a well, whether the canal and well are used in the same harvest or in different harvests. All land which has been irrigated from the canal in two years out of the five years 1898-99 to 1902-03, and has also been irrigated from a well in 2 years during the same period will be regarded as *Chahi-Nahri*.

(4) *Abi* —All land which is irrigated from tanks, *ghuls*, springs or from river branches or by District Board bunds. Both the lands flooded by water held up within the bund and also the lands irrigated by cuts from the bund will be included.

(5) *Dahri* —All land which in years of normal rainfall receives the drainage from the hills or from higher-lying lands.

(6) *Chiknot* —Hard clay unirrigated soil which does not usually receive flood water.

(7) *Narmot* —Fairly hard loam soil which receives no irrigation.

(8) *Magda* —Light and somewhat sandy unirrigated loam soil.

(9) *Bhur* —Sandy unirrigated soil.

The uncultivated lands are recorded as laid down in the Land Revenue Rules.

Comparing the classification of last settlement and now, it will be seen that the subdivision of *chahi* by soils has been abolished, as where the land receives irrigation the nature of the soil is of minor importance, while the definition of *chahi* has been altered so as to conform with the prescribed rules.

The classes of *nahri*, *chahi-nahri* and of the *barani* soils (*chiknot*, *narmot*, *magda* and *bhur*) have been discussed in the Palwal Assessment Report, and the same remarks apply. It may be noted that the argument for reducing the classes of *barani* soil applies with even greater force in this tahsil, as cash-rents will show.

Abi.—In this *tabil abi* is land which is irrigated by the District Board bunds mentioned in paragraph 5. Owing to the abnormal character of the seasons the work of classification has been extremely difficult. The statement in paragraph 3 shows that there has been no flooding from any bund since 1897, except the Kolla Bund, and this is the only bund which has a recorded *abi* area. It was found after many attempts impracticable to adopt the area irrigated in any particular year or years, and the classification was based on a careful examination of the land, and to a certain extent on the admissions of the zamindars. It may, I think, be accepted as correctly representing the area which in a normal series of years will be fairly regularly flooded.

Dahri.—As already explained, the classification of *dahri* is one of the problems of the assessment of this taluk. The area floodably cultivated as distinct from the Landohia has been fixed by the Tahsildar and Nab-Tahsildars after careful observations on the spot. As regards flooding from the Landohia, I have ordered all *barani* land which was flooded, both in 1904 and 1905, to be recorded as *dahri*. The area actually flooded in these two years was carefully measured, and there is no doubt as to the correctness of the recorded area.

Owing to the almost total cessation of flooding after 1897, and to the possible connection therewith of the alteration to the Atrai Bund, Mr. Hamilton, in 1904, ordered all lands flooded by the Landohia to be recorded as *barani*, but I do not think that such a pessimistic attitude is justifiable, and it does not appear oversanguine to anticipate that the moderate area now classed as *dahri* will be flooded whenever really heavy rain falls. It must be borne in mind that a fairly large part of this area is flooded by local drainage independently of the Landohia.

6 Statement I gives details of the rainfall for the past 21 years. There

are two gauges in the taluk—one at Pundhara and one at Ferozpur Jhirka.

Both give exactly the same average, and the rainfall of the whole taluk may, therefore, be taken to be uniform. The year has been divided into two periods—the months of monsoon rainfall and the rest of the year. The following table compares the former and the present figures, and the figures of the adjoining tracts are included for purposes of comparison.—

| | Inches |
|----------------------------------------------------|--------|
| First Settlement Report (section 7) | 31.1 |
| Revenue Report (section 2) | 27.3 |
| Station 11 { Paim River " " | 21.6 |
| { Ganga River " " | 21.1 |
| Taluk Pundhara, Atrai State (1875-77 to 1897-98) | 31.9 |
| Taluk Pundhara, Bhojpur State (1875-77 to 1897-98) | 31.9 |
| Taluk Khatwa, Bhojpur State | 33.3 |

I have also mentioned of the rainfall in Mr. Hamilton's Revenue Report.

The average rainfall in the taluk of Pundhara and Paim River is 31.1 inches, which is the same as the average rainfall in the taluk of Khatwa. The average rainfall in the taluk of Pundhara and Paim River is 31.1 inches, which is the same as the average rainfall in the taluk of Khatwa.

The average rainfall in the taluk of Pundhara and Paim River is 31.1 inches, which is the same as the average rainfall in the taluk of Khatwa. The average rainfall in the taluk of Pundhara and Paim River is 31.1 inches, which is the same as the average rainfall in the taluk of Khatwa.

CHAPTER II —GENERAL STATISTICS

Area.

7. The following table compares the total areas of the present and two preceding settlements —

| 1 | 2 | 3 | 4 | 5 | 6 |
|-------------------------------|------------------------|-----------------------------|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Total area
in acres | PERCENTAGE ON TOTAL AREA OF | | | REMARKS |
| | | Unculturable | Culturable | | |
| | | | Uncultivated | Cultivated | |
| First regular settle-
ment | 1,92,924 | 17 | 31 | 52 | The difference between
the areas of the 1st and
2nd regular settlements is
due to the transfer at the
end of the second settle-
ment of 15 villages from
the Nuh Tahsil |
| 2nd do ... | 2,02,644 | 16 | 2 | 82 | |
| 1905 06 ... | 2,01,966 | 16 | 2 | 82 | |

The figures of the first regular settlement are taken from Form A of Mr Channings' Assessment Report of the tahsil, and the figures in column 4 include fallow. There was a large increase of cultivation between the 1st and 2nd settlements, but cultivation had reached its utmost limit at last settlement, and very little change has taken place during the last thirty years.

But for a considerable decrease of cultivation in the Kotla Basin there would have been no change. As it is there has been a small decrease, as the statement which will shortly be put in shows.

In the *Mewat* the pressure of population on the soil is exceptionally severe, and it is impossible for the people to maintain even a moderate area of culturable waste for grazing purposes. The percentage of culturable waste is largest in the Bangar and Chiknot Circles, because in the former the hill area is smallest and in the latter a large part of the Kotla Basin is left uncultivated. In the Bhuder, Dahar Mitha and Dahar Khar Circles it amounts to a very small percentage, but the first two of these circles have a moderately large hill area which affords fairly good grazing, and they are therefore not so badly off in this respect as they appear to be.

The areas of each class of cultivated and uncultivated soil at last settlement, and now, are compared in the following statement.—

The present figures are taken from the measurement papers in the case of finished villages, and from the *jamabandis* of 1902-03 in the case of unfinished villages. The classification of soils is very easy in this tahsil, and was very carefully made at last settlement. No correction has been necessary, and the changes in the distribution of the various soils are due to the different method of classifying *chahi*, to the introduction of the new classes of *nahri* and *abi* and to the all-round decrease of the *dahri* or flooded area. The recorded *abi* and *dahri* areas are by no means final, as no reliance can be placed on the classification of these soils in the *jamabandis*, and even in the case of finished villages many alterations were made when the villages were inspected for assessment. The correct areas and percentages in each circle of *abi* and *dahri*, which have now been classified according to the principles stated in paragraph 5, are as follows —

| 1

Circle | 2 | | 3 | |
|-----------------|---------------|--------------|--------------------------------|--------------|
| | AREA IN ACRES | | PERCENTAGE ON CULTIVATED AREA. | |
| | <i>Abi</i> | <i>Dahri</i> | <i>Abi</i> | <i>Dahri</i> |
| Bangar | | 754 | .. | 1 |
| Bhader | 82 | 943 | | 2 |
| Dahar Mitha | | 4,364 | | 18 |
| Dahar Khari | 614 | 875 | 3 | 4 |
| Chiknot | 361 | 152 | 3 | 1 |
| Total Tahsil | 1,057 | 7,088 | 1 | 4 |

The *dahri* area in the Chiknot Circle does not include 842 acres flooded by the water which collects in the Kotla Jhil, and which are under fluctuating assessment.

The chief features of the statistics of cultivation are—(a) the great improvement in the Bangar Circle, effected by the introduction of canal irrigation, (b) the serious decrease of flooding in the Dahar and Chiknot circles, due to causes which I have already explained. The enormous decrease in the Chiknot Circle is due partly to an overestimate of the *dahri* area at settlement, partly to the action of the Kotla Bund in placing out of the reach of floods the villages which lie inside it, but chiefly to the breaching of the Madapur and Nagli Bunds, and to the fact that the Landoha floods do not now reach the north of the valley.

8 Well-irrigation is not of much importance in this tahsil, the *chahi* area being classed as *chahi* amounting to only 10 per cent of the cultivated area. In the Bangar and Dahar Khari Circles, where the soil is hard and the water generally salt, wells, if possible at all, are used only when the rainfall is insufficient to mature a *barani* crop. In normal years the difference between the yield of an irrigated and unirrigated crop on wells of this class is not sufficiently large to compensate for the extra expense of irrigation, and the lazy and poverty-stricken Meo naturally avoids the labour and expense of working his well as far as possible. In these two circles irrigation is inferior and is purely protective. In the Bhader Circle the wells are sweet, and in villages where the *barani* soil is too weak to permit of *rahi* sowings they are regularly used. In the Dahar Mitha Circle also there is a good deal of light soil, and as the water is sweet and very near, and as most of the villages adjoin the market town of Firozpur Jhirka, well irrigation is easy and profitable. In consequence the wells are regularly used, except in years when the *chahi* lands happen to be flooded. Statement XV illustrates the above remarks, in the Bangar and Dahar Khari Circles the *chahi* cash-rent is little higher than that of good *barani*, while in the other two circles there is a considerable difference.

In the Chiknot Circle the sub soil water is so salt that well irrigation may be said to be non-existent.

A feature of the well irrigation of the Dahar Khari Circle is the enormous expansion by means of earthen wells and *dhenllis* which takes place in dry years.

In the low-lying lands of the valley water is so near that temporary wells can be sunk at a nominal cost. They fall in with the first flood or heavy

The wells are all worked on the *charas* and *lao* system, and two yoke of oxen are invariably used. For the cost of the well-gear and of the bullocks I would refer to my Rewari Report, simply noting the fact here that the cost of these accessories has increased enormously in recent years.

Detailed statistics of wells and irrigation are given in Statement III. In a tahsil like this, where the wells are not regularly used, a comparison of the figures of last settlement and now is not of much use. The settlement figures are only for one year, which happened to be a year of exceptionally good rainfall, and consequently the number of wells in use and the area irrigated are much below average. To obtain a more reliable estimate, Mr. Wilson took the average of the year of settlement, of 1881-82 and of 1882-83. The irrigated area of settlement compares with this average area as follows —

| 1 | 2 | 3 |
|--------------|-----------------|----------------------------|
| Circle | Settlement area | Average of the three years |
| Bangar | 885 | 1,556 |
| Bhuder | 2,200 | 2,262 |
| Dahar Mitha | 1,528 | 1,164 |
| Dahar Khari | | |
| Chiknot | 765 | 653 |
| Total Tahsil | 5,378 | 5,635 |

The large decrease in the Dahar Circles was no doubt due to lack of resources, as they suffered severely in the bad seasons between 1878—1883. But for the effect of the famine Mr. Wilson's figures would probably have shown an increase of irrigation in these circles as in the other two. The present figures are the average of the 8 years 1898-99 to 1905-06, but as these years contain an unduly large proportion of bad *saabis*, the number of wells in use and the area irrigated is probably much above average. It is obvious from the above remarks that it is extremely difficult to make any reliable comparison of irrigation at settlement and now, and the figures in Statement I are of very little use. There appears to have been a considerable increase in all circles except Chiknot, and this supposition is borne out by the large increase in the number of wells, at the same time, for reasons already given, the increase is probably not as large as it appears to be.

The average area irrigated per *lao* is very small. The area irrigable and actually irrigated, in a year when a well is used averages 5 acres, but is little less in the Bhuder Circle, where the wells are somewhat deep and the soil sandy, and a little more in the Dahar Mitha Circle, where the lift is easy. As the wells are not regularly used the average area irrigated is less than the area irrigable and irrigated in any one year.

The information required by correction slip No 3 to Settlement Commissioner's Circular No 21 is as follows —

| 1 | 2 | 2 | 4 |
|-------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Assessment Circle | Number of masonry wells in use at the beginning of the expiring settlement which have fallen out of use during its term | Number of new masonry wells sunk during the term of expiring settlement and still in use | Number of masonry wells which were not in use at the beginning of the expiring settlement but were repaired during its term and are still in use |
| Bangar | 44 | 102 | 69 |
| Bhuder | 45 | 122 | 65 |
| Dahar Mitha | 33 | 63 | 20 |
| Dahar Khari | 13 | 80 | 37 |
| Chiknot | 4 | 2 | 6 |
| Total | 139 | 369 | 197 |

Another project which has already been sanctioned[€] and will be completed this year is the Hathin-Bhartpur escape. This will also relieve water-logging. It takes off from Paosar in the Nuh Tahsil where the water-logged area on the Hathin Rajbaha commences, and after making a semi-circular sweep through the Firozpur Tahsil ends in Bhartpur territory where it will be joined by the Paosar Drain. The removal by means of this escape of all surplus water will considerably benefit the villages below Paosar.

As the map shows, it is proposed to make small extensions of irrigation on most of the existing minors, and these will probably be carried out within the next three or four years.

The canal dues in force were detailed in the Palwal report.

The following table shows the areas irrigated during the five years selected for the produce estimate according to the records of the Canal Department —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------|---------------|------|--------|-----------------|--------------|--------|
| YEAR | AREA IN ACRES | | | Occupier's rate | Owner's rate | Total |
| | Flow | Lift | Total | | | |
| | | | | Rs | Rs | Rs |
| 1900-01 | 7,506 | 689 | 8,195 | 23,671 | 7,554 | 31,245 |
| 1901-02 | 9,210 | 945 | 10,185 | 31,262 | 10,052 | 41,314 |
| 1902-03 | 8,637 | 891 | 9,531 | 28,887 | 9,235 | 38,122 |
| 1903-04 | 9,010 | 895 | 9,905 | 29,964 | 9,630 | 39,594 |
| 1904-05 | 6,488 | 620 | 7,108 | 22,605 | 7,257 | 29,862 |
| Average | 8,176 | 809 | 8,985 | 27,278 | 8,749 | 36,027 |

The canal dues are at the scale in column 2 of the comparative table of rates given in the Palwal report and average Rs 4 per acre on the area recorded by the Canal Department. This area is 548 acres or $6\frac{1}{2}$ per cent larger than the matured area in Statement II. Canal dues at the present scale average exactly the same as at the old scale.

9 This tahsil has always been the worst in the district as regards communications. It contains no metalled road, though one is about to be constructed from the town of Firozpur-Jhirka to the town of Nuh (24 miles), and as a metalled road from Nuh to Palwal (22 miles) is also under construction, the villages situated in the north of the valley will get direct communication by metalled road with the Agra Delhi-Chord Railway at Palwal. The villages in the south of the valley are connected by a metalled road with the town of Alwar on the Rajputana-Malwa Railway. Formerly the road was in a very bad state of repair, but it has recently been repaired and is now in very good order. If possible the road from Nuh to Firozpur should be extended up to the Alwar border. Most of the produce of the Bangar Circle finds its way to Kosi in the Mathura District. This important market town is now on the Agra-Delhi-Chord Railway, the opening of which in 1904 has immensely improved the position of this tahsil. The town of Hodal, which is on the same Railway, is also within easy reach of the villages of the Bangar Circle. A "feeder" road to Hodal or Kosi, if possible from Firozpur-Jhirka, or if this is impracticable, from the eastern side of the central range, would still further improve communications.

Within the tahsil itself Firozpur-Jhirka serves as a mart for the produce of the valley, while the produce of the Bangar Circle is disposed of at Punahana, if it is not conveyed direct to Hodal or Kosi. Cotton, wheat and oilseeds are the chief articles exported. Cotton is, if possible, conveyed direct by the cultivator to Palwal, Hodal or Kosi, and sold at the ginning mills. Wheat and oilseeds are disposed of locally to the banna.

10 The former and present figures of cattle are given in Statement IV. The changes in the number of ploughs and bullocks correspond with the changes in the material condition of the various circles. The Bangar and Bhuder Circles have prospered, while the Dahar and Chiknot Circles have deteriorated, and in the

two first circles we find that ploughs and oxen have increased, while in the three last they have decreased. The following statement shows in each circle the area cultivated per pair of bullocks at settlement and now, and the increase and decrease per cent. of ploughs and bullocks. I have made a deduction from columns 4 for bulls at the rate of one bull for every 50 cows —

| 1 | 2 | 3 | 4 | 5 |
|----------------|-----------------------------------------------|-----|--------------------------------|---------|
| Circle | Area cultivated per pair of bullocks in acres | | Increase or decrease per cent. | |
| | Settlement | Now | Bullocks | Ploughs |
| Bangar .. | 16 | 16 | — | +2 |
| Bladar .. | 17 1/2 | 16 | —10 | —15 |
| Dadar Hills .. | 15 | 18 | —12 | —5 |
| " Khar .. | 14 | 16 | —17 | —17 |
| Chiknot .. | 18 | 20 | —11 | —11 |

The settlement area may be taken to represent the proper area cultivable per plough in each circle, except Chiknot, where the settlement area is too high, and the increase in the present area in the Dadar and Chiknot Circles resulting from the decrease in bullocks and ploughs is very serious. In the Bangar Circle ploughs and bullocks are sufficient, while in the Bladar Circle they are more than sufficient.

In a table where the area available for grazing is calculated, the number of cattle other than plough cattle is scarcely very small, and only a sufficient number are kept to supply milk and for domestic purposes, and the cows are nearly all stall-fed. The land affords grazing for a large number of cattle, but the cows are not properly kept by agriculturists, and few calves are kept. The supply of manure is less than the soil requires, and the table is not nearly so complete in this respect as Table I.

11. The following table shows the state of the general population in different parts —

| 1 | 2 | 3 | 4 |
|------|------------|------------|---------|
| Year | Population | Population | Remarks |
| 1881 | 2,27 | | |
| 1882 | 2,27 | | |
| 1883 | 2,27 | | |
| 1884 | 2,27 | | |
| 1885 | 2,27 | | |
| 1886 | 2,27 | | |
| 1887 | 2,27 | | |
| 1888 | 2,27 | | |
| 1889 | 2,27 | | |
| 1890 | 2,27 | | |
| 1891 | 2,27 | | |
| 1892 | 2,27 | | |
| 1893 | 2,27 | | |
| 1894 | 2,27 | | |
| 1895 | 2,27 | | |
| 1896 | 2,27 | | |
| 1897 | 2,27 | | |
| 1898 | 2,27 | | |
| 1899 | 2,27 | | |
| 1900 | 2,27 | | |

Pinangwan and Punahana The resulting incidence per square mile of cultivation in each circle is as follows —

| | |
|--------------|-----|
| Bangar | 517 |
| Bhuder | 468 |
| Dahar Mitha | 491 |
| " Khari | 465 |
| Chiknot ... | 295 |
| Total Tahsil | 478 |

These would not be very high rates for fertile, well cultivated and well irrigated soil, but they are high for this tahsil with its small proportion of artificial irrigation and for Meo cultivators. The improvident Meo has always been notorious for the number of his children (*vide* Section 56 (2) of the Final Settlement Report of Guigaon) and the population question is a serious one in the Mewat. Cultivation had reached its limit 20 years ago, population is already pressing very heavily on the soil, and given normal seasons, it must continue to increase, yet so great is the attachment of the Meo to his native land that no relief can be looked for from emigration.

Tenures and holdings

12. The following table shows the prevailing forms of tenure —

| 1 | 2 | 3 | 4 | 5 | 6 |
|-------------------|-----------------|----------|---------------------|------------------------|-------|
| Assessment Circle | ZAMINDARI | | Imperfect pattidari | Imperfect bhainyachara | Total |
| | Single landlord | Communal | | | |
| Bangar | | 4 | 38 | 61 | 103 |
| Bhuder | | 4 | 7 | 47 | 58 |
| Dahar Mitha | 1 | 1 | 4 | 25 | 31 |
| " Khari | | | 3 | 31 | 34 |
| Chiknot | | | 1 | 17 | 18 |
| Total | 1 | 9 | 53 | 181 | 244 |

Statement XI shows that nearly 50 per cent of the cultivated area is cultivated by the owners themselves, and the percentage would be much larger but for the large area transferred to outsiders. The owners are almost without exception small peasant proprietors, holding the minimum area necessary for their maintenance.

The following statement shows the average area per holding, the average area per owner and the net area per owner free for profit after deducting the area transferred to outsiders and cultivated by tenants free of rent or paying at revenue rates. Villages owned by a single owner and land owned by Government have been excluded from the calculation of the area in column 7 —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------------|--------------------|--------------------------------|-----------------|------------------|----------------|-----------------------------------------|
| Assessment Circle. | Year | Number of proprietary holdings | Cultivated area | Area per holding | Area per owner | Net area per owner available for profit |
| | | | Acres | Acres | Acres | Acres |
| Bangar .. | Present Settlement | 11,048 | 67,241 | 6 1 | 7 2 | 5 4 |
| Bhuder | | 5,889 | 38,688 | 6 6 | 8 7 | 6 |
| Dahar Mitha | | 4,885 | 25,490 | 5 2 | 9 | 5 6 |
| " Khari | | 7,298 | 20,908 | 2 9 | 5 9 | 3 9 |
| Chiknot | | 3,206 | 11,950 | 3 7 | 6 4 | 4 2 |
| Total | | 32,326 | 164,277 | 5 1 | 7 5 | 5 1 |

The area in column 7 is sufficient in the first three circles, but even in them the distribution is very uneven, and there are many villages where the area per owner free for profit is not more than 2 acres. In the Dabur Khari and Chakri Circles land is altogether insufficient and the pressure of population on the soil is excessively severe. In these circles there are many villages where the area free for profit is less than 1 acre per owner, and the problem of how to assess such villages is a very difficult one.

It should be noted that in calculating the area in column 7 I have only deducted the area transferred to "others." If I had deducted the whole area transferred the net area per owner would be still smaller, as the area transferred to "others" is little more than one-third of the whole area transferred.

13. Statement V shows the distribution of ownership by tribes. The

Tribe of Meos and Meos

proprietary body is composed almost without exception of Meos, who are a

lazy, thriftless and improvident tribe, though to quote the words of Mr. Channing (Assessment Report, paragraph 16) "how to characterize them as cultivators I hardly know." As a cultivator the Meo is generally what his surroundings make him. In the valley, where the assessment is high and the pressure of population on the soil severe, the cultivation is of a high class and the people are industrious. Similarly in the Palwal Tahsil, where the assessment is severe for Meos, and the standard of cultivation set by the surrounding Jats high, the few Meo villages are noted for their industry and good cultivation. In the Bangar Circle of the tahsil, on the other hand, where the assessment is somewhat light, the cultivation is slovenly and more in accordance with the traditional habits of the tribe.

As Mr. O'Dwyer has pointed out in paragraph 22 of the Assessment Report of Tahsils Kishanganj and Ramgarh. "While the men are lazy the women are energetic and industrious and do most of the field work except the ploughing." Mr. O'Dwyer sums up the character of the Meos as follows:—

"All are a like impulsive, short-sighted, easily led, especially in the wrong direction, litigious, not hospitable for Muslims, but remarkably extravagant on certain occasions, such as weddings and funerals. They want the stamp of the Jats. Prosperity turns the head of a Meo, a luxury makes him foolish, and as they themselves freely admit they are only good while kept well under. Their facilities are however sharper than those of any other tribe except perhaps the Ahirs, and this makes them keen defenders of their own interests and quick to observe and resent any injustice."

To this description I would add as an instance of their impudence that they are addicted to a practice of "bheini." They borrow from the money lender a sum which is to be repaid at harvest time on condition that the produce of which the produce is to be disposed of being first lent. Should the price be unfavourable, as often happens, and the debtor unable to pay up the value of produce agreed upon, he is debited with the value of the produce in default, calculated at the market rate, which is probably, the rate then in force, and only agreed upon.

As an instance of the demoralizing effect of prosperity on the tribe, I would mention the great villages. The extravagant and dissipated habits of the Meos in the great villages is a fact, and it is a fact that the Meos in the great villages are a different class from the Meos in the small villages.

In answer to a question of the character of the Meos, Mr. Channing writes in his report (Assessment Report, paragraph 16) "how to characterize them as cultivators I hardly know." As a cultivator the Meo is generally what his surroundings make him.

It is a fact that the Meos in the great villages are a different class from the Meos in the small villages. The Meos in the great villages are a different class from the Meos in the small villages. The Meos in the great villages are a different class from the Meos in the small villages.

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mortgage, and the latter gives the annual total of sales, mortgages and redemptions from 1885 to 1905-06. Reliable figures are not available before 1885. The following table compares the state of transfers at last settlement and now. The top figure is the percentage of the cultivated area transferred and underneath in brackets the price per acre is shown in oven rupoes. The settlement figures are taken from paragraph 13 of Mr Channing's Assessment Report and Table II appended to the Report. I am unable to give details of sales before settlement by circles as Table I is missing. The percentage of transfers before settlement is calculated on the total area and of existing transfers on the cultivated area.

As the present Dahar Khari and Chiknot Circles do not agree with Mr. Channing's Mandikhera and Chiknot Circles, I have given the total percentage of mortgage in the two former circles —

| 1 | 2 | 3 | 4 | 5 |
|--------------|-----------------------------|------------------|----------------|---------------|
| | SALES | | MORTGAGES | |
| | Before Settlement (1857-75) | Since Settlement | At Settlement. | Now |
| Bangar | | 1
(Rs 111) | 6
(Rs 17) | 29
(Rs 49) |
| Bhader | | 5
(Rs 43) | 6
(Rs 22) | 27
(Rs 42) |
| Dahar Mitha | | 14
(Rs 20) | 8
(Rs 22) | 37
(Rs 37) |
| „ Khari | | 5
(Rs 116) | | 53
(Rs 58) |
| Chiknot | | 2
(Rs 50) | 16
(Rs 32) | 47
(Rs 38) |
| Total Tahsil | 1
(Rs 32) | 4
(Rs 38) | 8
(Rs 24) | 34
(Rs 46) |

The area sold is very small. The attachment of the Meo to his native soil is extraordinarily strong and he would rather mortgage 100 acres than sell one. The large percentage of sale in the Dahar Mitha Circle is due to the sale among relations of the whole village of Doha (paragraph 12). Excluding the area of this village the percentage is reduced to 3, while the average price is raised to Rs 33 per acre.

The area mortgaged is on the other hand very large and is worst in the two Dahar and Chiknot Circles. As regards mortgage the condition of this tahsil is bad, but not as bad as it appears to be. The extravagant and improvident Meo, though averse to selling thinks nothing of mortgaging his land, especially if he has a little more than the bare minimum required for the maintenance of his family, a bad harvest or a wedding will involve him temporarily in a mortgage, but he expects if the seasons are favourable to be able in a few years to redeem his land, and Statement VII shows that he does so. In the second and third periods which were years of prosperity the area redeemed equals the area mortgaged. Another satisfactory feature is the large proportion of mortgage to members of an agricultural tribe. It amounts to nearly two-thirds of the whole, and most of it is in the hands of co-sharers. Extensive mortgage therefore does not necessarily mean anything when the mortgagors are Meos, and in the Bangar and Bhader Circles mortgage is not serious. In the other circles, however—especially in Dahar Khari and Chiknot—the state of affairs could not very well be worse.

In many villages in these circles the area mortgaged is so large that no margin is left for comfort or even for the bare maintenance of the mortgagor. Most of the mortgage to “others” took place in the bad years immediately after last settlement, when banias acquired possession of large areas.

In the Mewat the Land Alienation Act has proved of immense benefit to the people. As Mr Wilson says, their careless habit of contracting debt for marriages, funerals and petty luxuries even in average years formerly placed them

absolute at the mercy of the money-lender when a year of drought came. When one man has mortgaged his land to a money-lender, he is rarely able to redeem it. He usually cultivates it himself at a rack rent, which can only be paid in favourable seasons, and before the passing of the Land Alienation Act the penalty attached to default of payment was further mortgaging.

This state of affairs is now at an end, and the decrease of mortgage in the two Bahar Circles since 1901 is most satisfactory. The following table shows the totals of unsecured debt in each circle:—

| 1 | 2 | 3 | 4 | 5 |
|-------------------|-------------------|---------------------|----------------------|---------|
| Assessment Circle | Expenditure | | | Total |
| | Due to co-sharers | Due to other owners | Due to money-lenders | |
| | Rs. | Rs. | Rs. | |
| Lychar | 27,957 | 21,400 | 198,579 | 247,936 |
| Phander | 10,795 | 17,502 | 19,115 | 47,412 |
| Dahar Mitha | 5,816 | 1,497 | 21,534 | 28,847 |
| Khart | 10,276 | 15,512 | 67,771 | 93,559 |
| Chikhet | 1,111 | 8,274 | 19,575 | 28,960 |
| Total T. & R. | 55,955 | 54,185 | 417,574 | 527,714 |

The amount of unsecured debt varies inversely with the amount of mortgage. In the circles where mortgage is heaviest, unsecured debt is least, which means that from the people cannot borrow without the security of land. Debt is largest in the Bangur Circle, where it is more than three times the land revenue, because there the assessment is lightest and the introduction of canal irrigation has improved credit. For the whole taken in round numbers, amounts to twice the land revenue, which is less than in taluk-Bawar or Patral and indicates the small amount of confidence which the Money-lender has in the people.

From the statement at the beginning of this paragraph, it would appear that the price of land has nearly doubled, but very little reliance can be placed on such figures. The sale price in column 3 is obviously incorrect, which the mortgage price in column 4, and the fact that the land is almost mortgaged, shows. The price of land has certainly risen considerably in the Bahar Circle owing to the canal, and has probably risen in the Phander and Dahar Mitha Circle. With regard to Dahar Khart and Chikhet Circle, no statement appears to have been made.

The price of land in the Bahar Circle is probably the highest in the district, and the land is almost mortgaged.

On account of the increase in the price of land, the land revenue has been raised. In the Bahar Circle, the land revenue has been raised from Rs. 1,00,000 to Rs. 1,50,000. In the Phander Circle, the land revenue has been raised from Rs. 50,000 to Rs. 75,000. In the Dahar Mitha Circle, the land revenue has been raised from Rs. 25,000 to Rs. 35,000. In the Dahar Khart Circle, the land revenue has been raised from Rs. 10,000 to Rs. 15,000. In the Chikhet Circle, the land revenue has been raised from Rs. 5,000 to Rs. 10,000.

The increase in the price of land has also led to an increase in the amount of mortgage. In the Bahar Circle, the amount of mortgage has increased from Rs. 1,00,000 to Rs. 1,50,000. In the Phander Circle, the amount of mortgage has increased from Rs. 50,000 to Rs. 75,000. In the Dahar Mitha Circle, the amount of mortgage has increased from Rs. 25,000 to Rs. 35,000. In the Dahar Khart Circle, the amount of mortgage has increased from Rs. 10,000 to Rs. 15,000. In the Chikhet Circle, the amount of mortgage has increased from Rs. 5,000 to Rs. 10,000.

REPORT III.—THE STATE OF THE DISTRICT

The district is situated in the north-western part of the province, and is bounded by the district of ... on the north, the district of ... on the east, the district of ... on the south, and the district of ... on the west. The district is a fertile one, and is well watered by the ... river. The population of the district is ... and the area is ... square miles. The district is divided into ... talukas, and the total area of the district is ... square miles. The district is a very important one, and is well known for its ... and ...

In this statement the barani soil classification is that of last settlement with the modifications introduced by patwaris at crop inspections.

17. Statement X shows the area matured at each harvest in each circle during the last 21 years, and the percentage which the matured area bears to the cultivated area. Periodical averages have been struck which show that in all circles the first two periods were above and the last two below the average. The kharifs are nearly average all through and the deficiency in the last two periods is due entirely to the long series of bad rains since 1896

In the Bangar Circle owing to the influence of the canal the recorded percentage of matured to cultivated area exceeds 100: but as will be shown later the failed area in this circle has been considerably underestimated and the percentage is not nearly so large as Statement X shows. In the Bhuder and Dahar Circles the percentage is also high. In the first named circle the lightness of the soil permits of a crop being matured with very little rain, while the other two circles are secure owing to the moistness and fertility of their soil. The percentage in the Dahar Kharai Circle is probably the highest in the tahsil while it is lowest in the insecure Chiknot Circle where the proportion of black chiknot is very large and in the greater part of the circle the soil is dependent entirely on the rainfall. The figures of the last ten years in this circle speak for themselves and constitute the chief justification for the separation of the Chiknot from the Dahar Kharai Circle.

18. The following statement shows in percentages the average area of each important crop sown, matured or failed, on 100 acres of each class of land during the years selected for the produce estimate.—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------------|---------|------------------|-------|-------|-----|-------|--------|--------|--------|
| Assessment Circle | Harvest | Crop | Chabi | Nahri | Abi | Dahri | Barani | Bhnr | Total |
| BANGAR | Kharif | Jowar | | | | 16.00 | 14.81 | 1.18 | 10.38 |
| | | Bajra .. | | .. | . | 3.70 | 34.85 | 53.22 | 27.23 |
| | | Pulses | | .. | . | 35 | 1.76 | 3.01 | 2.08 |
| | | Fodder | | . | .. | 78 | 10.64 | 10.44 | 7.95 |
| | | Cotton | 72 | 25.13 | .. | 4.39 | 8.48 | 2.29 | 10.06 |
| | | Sugarcane | | 5.87 | | | .. | | .93 |
| | | Others | 62 | 9.53 | | 1.04 | 2.83 | 87 | 3.57 |
| | | Area harvested | 1.34 | 40.53 | . | 26.36 | 74.37 | 71.01 | 62.20 |
| | | Area failed | .05 | 1.33 | | 88 | 14.77 | 23.27 | 11.80 |
| | | Area sown | 1.39 | 41.86 | | 27.24 | 89.14 | 94.28 | 74.00 |
| | Rabi | Wheat | 7.93 | 8.23 | .. | 2.46 | 1.37 | .19 | 2.96 |
| | | Barley .. | 29.52 | 13.60 | | 3.16 | 7.54 | 6.10 | 10.23 |
| | | Gofra and gochni | 2.25 | 5.35 | | 5.27 | 2.26 | .27 | 2.65 |
| | | Gram | | 8.64 | . | 6.15 | 25.38 | 13.07 | 19.66 |
| | | Oilseeds | 1.13 | 1.47 | | 1.76 | 2.22 | 2.00 | 1.89 |
| | | Others .. | 2.16 | 1.07 | . | | 20 | 02 | 50 |
| | | Area harvested | 42.99 | 28.60 | .. | 16.80 | 35.87 | 21.65 | 37.99 |
| | | Area failed | 1.85 | 1.04 | .. | 4.39 | 12.23 | 7.50 | 9.26 |
| | | Area sown .. | 44.87 | 29.64 | | 21.19 | 51.25 | 29.16 | 47.25 |
| | Total | Area harvested | 44.33 | 78.03 | | 45.16 | 113.84 | 92.66 | 100.19 |
| | | Area failed | 1.83 | 2.37 | .. | 5.27 | 27.05 | 30.77 | 31.06 |
| | | Area sown | 46.26 | 81.40 | .. | 50.43 | 140.30 | 123.43 | 121.25 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------------|---------|------------------|-------|-------|------|--------|--------|-------|-------|
| Assessment Circle | Harvest | Crop | Chall | Nahin | All | Dahrl. | Darnel | Other | Total |
| BHEDEF | KHARIF | Jowar | | ... | ... | 631 | 602 | 126 | 201 |
| | | Bajra | | ... | 551 | 202 | 2047 | 4756 | 3521 |
| | | Pulses | | ... | 75 | 102 | 452 | 131 | 661 |
| | | Cotton | 202 | ... | 113 | 255 | 980 | 217 | 402 |
| | | Foodgr. | 19 | ... | 130 | 508 | 1538 | 1220 | 1102 |
| | | Others | 77 | ... | 25 | 178 | 202 | 50 | 177 |
| | | Area harvested | 207 | | 640 | 2727 | 6545 | 7623 | 6156 |
| | | Area failed | 15 | | 375 | 1127 | 1232 | 2002 | 1522 |
| | | Area sown | 202 | | 1216 | 7575 | 7775 | 2441 | 7584 |
| | RABI | Wheat | 615 | ... | ... | 507 | 471 | 14 | 285 |
| | | Barley... | 2303 | | 115 | 647 | 274 | 625 | 1047 |
| | | Grain and pulses | 307 | ... | 322 | 276 | 64 | 231 | 479 |
| | | Others | | ... | 151 | 582 | 1115 | 425 | 200 |
| | | Oilseeds | 170 | ... | 57 | 216 | 617 | 618 | 575 |
| | | Others | 410 | ... | ... | 70 | 145 | 27 | 25 |
| | | Area harvested | 607 | | 715 | 2725 | 4710 | 2777 | 2078 |
| | | Area failed | 415 | | 475 | 743 | 1637 | 1772 | 1178 |
| | | Area sown | 2722 | | 116 | 7741 | 7547 | 2171 | 4115 |
| | Kharif | Area harvested | 2722 | | 1015 | 2721 | 1107 | 2768 | 2022 |
| | | Area failed | 477 | | 50 | 1470 | 1122 | 2778 | 2772 |
| | | Area sown | 2722 | | 2111 | 7741 | 1774 | 1772 | 4115 |
| BHEDEF | Kharif | Jowar | | ... | ... | ... | ... | ... | ... |
| | | Bajra | | ... | ... | 1503 | 2721 | ... | ... |
| | | Pulses | | ... | ... | 107 | 621 | ... | ... |
| | | Cotton | 124 | | ... | ... | ... | ... | ... |
| | | Foodgr. | | ... | ... | ... | ... | ... | ... |
| | | Others | 15 | ... | ... | 217 | 871 | 17 | 118 |
| | | Area harvested | 207 | | ... | 2787 | 722 | 754 | 5110 |
| | | Area failed | | ... | ... | 42 | 272 | 244 | 2127 |
| | | Area sown | 41 | | ... | 278 | 754 | 754 | 1047 |
| | RABI | Wheat | 615 | | ... | 507 | 471 | 14 | 285 |
| | | Barley... | 2303 | | ... | 647 | 274 | 625 | 1047 |
| | | Grain and pulses | 307 | | ... | 276 | 64 | 231 | 479 |
| | | Others | | ... | ... | ... | ... | ... | ... |
| | | Oilseeds | 170 | | ... | 216 | 617 | 618 | 575 |
| | | Others | 410 | | ... | 70 | 145 | 27 | 25 |
| | | Area harvested | 607 | | ... | 2725 | 4710 | 2777 | 2078 |
| | | Area failed | 415 | | ... | 743 | 1637 | 1772 | 1178 |
| | | Area sown | 2722 | | ... | 7741 | 7547 | 2171 | 4115 |
| | Kharif | Area harvested | 2722 | | ... | 2721 | 1107 | 2768 | 2022 |
| | | Area failed | 477 | | ... | 1470 | 1122 | 2778 | 2772 |
| | | Area sown | 2722 | | ... | 7741 | 1774 | 1772 | 4115 |
| BHEDEF | Kharif | Jowar | | ... | ... | ... | ... | ... | ... |
| | | Bajra | | ... | ... | 1503 | 2721 | ... | ... |
| | | Pulses | | ... | ... | 107 | 621 | ... | ... |
| | | Cotton | 124 | | ... | ... | ... | ... | ... |
| | | Foodgr. | | ... | ... | ... | ... | ... | ... |
| | | Others | 15 | ... | ... | 217 | 871 | 17 | 118 |
| | | Area harvested | 207 | | ... | 2787 | 722 | 754 | 5110 |
| | | Area failed | | ... | ... | 42 | 272 | 244 | 2127 |
| | | Area sown | 41 | | ... | 278 | 754 | 754 | 1047 |
| | RABI | Wheat | 615 | | ... | 507 | 471 | 14 | 285 |
| | | Barley... | 2303 | | ... | 647 | 274 | 625 | 1047 |
| | | Grain and pulses | 307 | | ... | 276 | 64 | 231 | 479 |
| | | Others | | ... | ... | ... | ... | ... | ... |
| | | Oilseeds | 170 | | ... | 216 | 617 | 618 | 575 |
| | | Others | 410 | | ... | 70 | 145 | 27 | 25 |
| | | Area harvested | 607 | | ... | 2725 | 4710 | 2777 | 2078 |
| | | Area failed | 415 | | ... | 743 | 1637 | 1772 | 1178 |
| | | Area sown | 2722 | | ... | 7741 | 7547 | 2171 | 4115 |
| | Kharif | Area harvested | 2722 | | ... | 2721 | 1107 | 2768 | 2022 |
| | | Area failed | 477 | | ... | 1470 | 1122 | 2778 | 2772 |
| | | Area sown | 2722 | | ... | 7741 | 1774 | 1772 | 4115 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------------|---------|------------------|--------|-------|--------|-------|--------|--------|--------|
| Assessment Circle | Harvest | Crop | Chahi | Nabri | Abi | Dabri | Barani | Bhur | Total |
| DAHAR KHARI | KHARIF | Jowar | . | | 4 47 | 20 | 10 44 | 3 15 | 7 74 |
| | | Bajra | .. | | 12 85 | 71 | 17 09 | 42 34 | 18 44 |
| | | Pulses | .. | .. | 1 87 | 05 | 2 27 | 7 20 | 2 34 |
| | | Cotton | | | 2 96 | | 9 10 | 7 44 | 7 22 |
| | | Fodder | . | . | 8 73 | | 12 75 | 15 18 | 10 49 |
| | | Others | 1 87 | | 50 | | 2 94 | 1 13 | 2 34 |
| | | Area harvested | 1 87 | | 26 44 | 1 02 | 54 68 | 78 44 | 46 56 |
| | | Area failed | 00 | | 8 38 | 05 | 10 20 | 14 24 | 8 76 |
| | | Area sown | 1 03 | | 34 82 | 1 07 | 64 94 | 90 68 | 55 34 |
| | | Wheat | 5 06 | | 8 57 | 30 | 3 55 | 2 02 | 3 43 |
| | RABI | Barley | 31 21 | | 8 57 | | 15 70 | 13 60 | 15 14 |
| | | Gojra and gochni | 2 33 | | 8 04 | 26 | 11 34 | 6 20 | 8 09 |
| | | Gram | | | 9 87 | 05 | 10 13 | 9 80 | 8 29 |
| | | Oilseeds | 2 95 | | | | 5 30 | 11 18 | 5 39 |
| | | Others | 5 22 | | 2 60 | 05 | 24 | 20 | 70 |
| | | Area harvested | 47 67 | | 33 55 | 66 | 46 78 | 43 12 | 41 83 |
| | | Area failed | 6 42 | | 15 46 | | 22 81 | 24 44 | 10 25 |
| | | Area sown | 54 09 | | 54 01 | 80 | 69 57 | 67 56 | 61 13 |
| | TOTAL | Area harvested | 49 54 | | 64 09 | 1 68 | 101 44 | 119 58 | 88 49 |
| | | Area failed | 6 48 | | 23 84 | 05 | 33 07 | 33 68 | 23 03 |
| | | Area sown | 56 12 | | 88 83 | 1 73 | 184 51 | 158 24 | 116 52 |
| CHIKNOT | KHARIF | Jowar | | | 4 48 | 1 43 | 14 53 | 2 98 | 10 26 |
| | | Bajra | | | 1 49 | 1 92 | 12 06 | 22 02 | 9 86 |
| | | Pulses | | | | 56 | 1 72 | 3 27 | 1 40 |
| | | Cotton | | | 74 | 1 39 | 7 60 | 3 57 | 5 59 |
| | | Fodder | | | 4 48 | 2 04 | 10 75 | 8 04 | 8 05 |
| | | Others | 3 85 | | 75 | 35 | 3 50 | | 2 47 |
| | | Area harvested | 3 85 | | 11 94 | 7 71 | 51 06 | 39 88 | 37 63 |
| | | Area failed | | | 4 48 | 2 41 | 13 48 | 3 87 | 9 86 |
| | | Area sown | 3 85 | | 16 42 | 10 12 | 64 54 | 43 75 | 47 49 |
| | RABI | Wheat | 3 85 | | 30 60 | 3 11 | 5 59 | 29 | 5 00 |
| | | Barley | 60 23 | .. | 7 46 | 52 | 3 93 | 1 79 | 3 21 |
| | | Gojra and gochni | 5 77 | | 47 02 | 1 05 | 18 43 | 6 84 | 13 63 |
| | | Gram | .. | . | 5 22 | 17 | 7 28 | 6 85 | 5 17 |
| | | Oilseeds | | . | | | 2 18 | 60 | 1 47 |
| | | Others | 28 84 | .. | 41 79 | 1 31 | 1 03 | | 1 66 |
| | | Area harvested | 107 69 | .. | 132 09 | 7 08 | 38 43 | 6 37 | 30 14 |
| | | Area failed | 46 16 | | 44 03 | 3 33 | 19 02 | 5 06 | 15 09 |
| | | Area sown | 153 85 | | 178 12 | 10 39 | 58 05 | 21 43 | 45 23 |
| | TOTAL | Area harvested | 111 54 | . | 144 03 | 14 77 | 89 49 | 56 25 | 67 77 |
| | | Area failed | 46 16 | .. | 48 51 | 6 34 | 33 10 | 8 93 | 24 95 |
| | | Area sown | 157 70 | . | 192 54 | 21 11 | 122 59 | 65 18 | 92 72 |

22 The cultivation of the barani soils differs considerably in the various circles. In the Bangan Circle the soil is generally too dry and in the

Barani.

Bhuder Circle too light for the successful growth of unirrigated rabi crops, consequently in both these circles nearly the whole barani area is put under kharif crops consisting of jowar where the soil is Chiknot, bajra, jowar, and cotton where the soil is narmot, and magda and bajra only where the soil is bhur. In these two circles the proportion of unirrigated cotton is smaller than in the more fertile lands of the valley. At the rabi, if the September rainfall is good, the best land which has been kept fallow is put under beghai (barley and gram), while the remaining area which has already borne a crop of bajra or jowar and is strong enough to grow rabi crops is sown with "dofash" gram. This area is of necessity small in the Bhuder Circle. These remarks as to double cropping do not apply to the chiknot of these circles, as Chiknot unless moistened by flooding or percolation cannot be double cropped. In the Dahar Mitha Circle, owing to the natural fertility of the soil, the area under rabi crops is larger and the proportion of wheat, barley and mixtures to gram sown alone is much larger, similarly at the kharif the proportions of jowar and cotton to bajra are larger than in the two previously mentioned circles.

The Dahar Kharif and Chiknot Circles are distinguished from the other circles by the large proportion of Chiknot in the soils. Statement X shows that in these circles there is normally a large preponderance of rabi over kharif crops, though owing to the recent dry rabis the areas under kharif and rabi crops during the years selected for the produce estimate are nearly equal.

In the Dahar Kharif Circle the cultivation resembles that of the Dahar Mitha Circle, but there is more cotton, wheat and gochni. In the strong soil of the Chiknot circle the area under jowar is equal to that under bajra, while wheat and gochni are almost the only rabi crops.

In the Palwal Assessment Report I have described the method of cultivating jowar, bajra, cotton, beghar and gram on the various barani soils, and the system of cultivating these crops in this tahsil is the same, except that in the Dahar and Chiknot Circles jowar is not generally sown thickly to yield half grain and half fodder, but is sown sparsely for grain. Pulses are as usual grown with jowar and bajra, and til and hemp with cotton. The method of cultivating gochni has been described in the preceding paragraph. On the harder soils oil-seeds are always sown in lines, but in light moist magda and bhur, chiefly in the Bhuder and Dahar Circles, sarson is frequently grown alone in soil which has been well fertilized by cattle which are penned out during the rainy season. Owing to the scarcity of cattle there is very little manuring. In the case of ordinary barani land fallows take the place of manure, but the soil of the low-lying lands is so naturally fertile that it is able to stand without exhaustion a large amount of double cropping.

23 The following table compares the percentages of the chief staples at last settlement and now. As already

Changes of Cropping

stated, the settlement figures are worked out from Form D while the present figures are arrived at by calculating the percentage which the matured area of each crop bears to the total matured area. It was impossible to make the calculation on sown areas, as though the total sown area is given in the crop statement the sown area of each crop is not available.

The comparison is a very rough one because the settlement areas are the sown areas of the year of measurement, and are neither the figures of a series of years nor even of one year, as the villages were measured in different years.

Some of the results of the comparison are astonishing and show what serious errors were introduced into the produce estimate by mistakes of classification and by taking the figures of only one harvest. The area under cereals (especially kharif cereals) and cotton was much overestimated, as the miscellaneous crops (pulses, hemp, sesame and oilseeds) which are grown with them were not recorded at all, the whole area being shown as under the superior crop. Similarly the large decrease of the area under cotton, which is due partly to the cause just explained, must have been due partly to the area being that of one harvest only, which happened to be exceptionally favourable to the cultivation of cotton. Owing to the lateness of the rains in recent years there probably has

been some real decrease of cotton in favour of bajra, but it has not been so large as the figures indicate. The serious under-estimate of the area under fodder crops (guar-chani) is due to the fact that the area shown as under guar is that of guar sown alone, which forms a very small proportion of the total area under this crop—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------|------------|-----|------------|-----|-------------|-----|-------------|-----|------------|-----|-----------------|
| Crop | BAJRA | | GUAR | | DALIA MITHA | | DALIA KHARI | | CHICKPEA | | Total
Tareed |
| | Settlement | Now | Settlement | Now | Settlement | Now | Settlement | Now | Settlement | Now | |
| Jowar | 51 | 10 | 1 | 1 | 14 | 11 | 1 | 1 | 15 | 1 | 18 |
| Bajra | 2 | 27 | 1 | 26 | 2 | 27 | 17 | 15 | 1 | 1 | 24 |
| Cane | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Cotton | 1 | 10 | 11 | 5 | 12 | 7 | 3 | 5 | 12 | 1 | 1 |
| Guar Chani | 1 | 8 | 7 | 12 | 12 | 6 | 5 | 12 | 6 | 11 | 1 |
| Wheat | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Barley | 1 | 10 | 12 | 12 | 14 | 1 | 24 | 17 | 1 | 1 | 10 |
| Bajra | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Guar | 17 | 20 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Guar Guhar | 2 | 1 | 1 | 1 | 11 | 1 | 1 | 1 | 1 | 1 | 1 |
| Others | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

I proceed to discuss the comparison circle by circle.—

(1). *Haripur Circle*—The first notable feature is the substitution of bajra for jowar as the chief kharif cereal. There has probably been some change in the district owing partly to the pressure of population thereby forcing the chief food crop of the district partly to the dry seasons in which bajra does much better than jowar, and partly to the introduction of canal irrigation, which produces a change in the soil and unfavourable to jowar, but I do not believe that change has been anything like so great as the figures indicate. The area of bajra is not so great as of course it is, and a great deal of the area of jowar is still under jowar, which are now cultivated separately. The only other change in the cropping in this circle are due to the introduction of canal irrigation, which has led to the cultivation of cotton and sugarcane, and the area of cotton is still small, but it is the only crop which has been introduced, and it is the only crop which has been introduced, and it is the only crop which has been introduced. The area of sugarcane is still small, but it is the only crop which has been introduced, and it is the only crop which has been introduced.

(2). *Haripur Circle*—The second notable feature is the substitution of bajra for jowar as the chief kharif cereal. There has probably been some change in the district owing partly to the pressure of population thereby forcing the chief food crop of the district partly to the dry seasons in which bajra does much better than jowar, and partly to the introduction of canal irrigation, which produces a change in the soil and unfavourable to jowar, but I do not believe that change has been anything like so great as the figures indicate. The area of bajra is not so great as of course it is, and a great deal of the area of jowar is still under jowar, which are now cultivated separately. The only other change in the cropping in this circle are due to the introduction of canal irrigation, which has led to the cultivation of cotton and sugarcane, and the area of cotton is still small, but it is the only crop which has been introduced, and it is the only crop which has been introduced.

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(4). *Haripur Circle*—The fourth notable feature is the substitution of bajra for jowar as the chief kharif cereal. There has probably been some change in the district owing partly to the pressure of population thereby forcing the chief food crop of the district partly to the dry seasons in which bajra does much better than jowar, and partly to the introduction of canal irrigation, which produces a change in the soil and unfavourable to jowar, but I do not believe that change has been anything like so great as the figures indicate. The area of bajra is not so great as of course it is, and a great deal of the area of jowar is still under jowar, which are now cultivated separately. The only other change in the cropping in this circle are due to the introduction of canal irrigation, which has led to the cultivation of cotton and sugarcane, and the area of cotton is still small, but it is the only crop which has been introduced, and it is the only crop which has been introduced.

(5). *Haripur Circle*—The fifth notable feature is the substitution of bajra for jowar as the chief kharif cereal. There has probably been some change in the district owing partly to the pressure of population thereby forcing the chief food crop of the district partly to the dry seasons in which bajra does much better than jowar, and partly to the introduction of canal irrigation, which produces a change in the soil and unfavourable to jowar, but I do not believe that change has been anything like so great as the figures indicate. The area of bajra is not so great as of course it is, and a great deal of the area of jowar is still under jowar, which are now cultivated separately. The only other change in the cropping in this circle are due to the introduction of canal irrigation, which has led to the cultivation of cotton and sugarcane, and the area of cotton is still small, but it is the only crop which has been introduced, and it is the only crop which has been introduced.

(6). *Haripur Circle*—The sixth notable feature is the substitution of bajra for jowar as the chief kharif cereal. There has probably been some change in the district owing partly to the pressure of population thereby forcing the chief food crop of the district partly to the dry seasons in which bajra does much better than jowar, and partly to the introduction of canal irrigation, which produces a change in the soil and unfavourable to jowar, but I do not believe that change has been anything like so great as the figures indicate. The area of bajra is not so great as of course it is, and a great deal of the area of jowar is still under jowar, which are now cultivated separately. The only other change in the cropping in this circle are due to the introduction of canal irrigation, which has led to the cultivation of cotton and sugarcane, and the area of cotton is still small, but it is the only crop which has been introduced, and it is the only crop which has been introduced.

(7). *Haripur Circle*—The seventh notable feature is the substitution of bajra for jowar as the chief kharif cereal. There has probably been some change in the district owing partly to the pressure of population thereby forcing the chief food crop of the district partly to the dry seasons in which bajra does much better than jowar, and partly to the introduction of canal irrigation, which produces a change in the soil and unfavourable to jowar, but I do not believe that change has been anything like so great as the figures indicate. The area of bajra is not so great as of course it is, and a great deal of the area of jowar is still under jowar, which are now cultivated separately. The only other change in the cropping in this circle are due to the introduction of canal irrigation, which has led to the cultivation of cotton and sugarcane, and the area of cotton is still small, but it is the only crop which has been introduced, and it is the only crop which has been introduced.

(5). *Chiknot Circle* —The same remarks apply with regard to cotton as in the *Dahar Khari Circle*. Otherwise there seems to have been little change, and the large percentage of wheat at settlement as against gochni now is probably due to a misclassification.

The serious overestimate of the area under the more valuable crops at the expense of the less valuable, and the underestimation of the area under guar, the value of which was not included in the Produce Estimate, all tended to make Mr Channing's estimate of the value of the produce excessive.

CHAPTER IV.—RENTS AND TENANCIES.

24 The following statement shows the percentages on total cultivation of the land held by the owners themselves and by the various classes of tenants at settlement and now. The figures are abstracted from Form B of Mr. Channing's Report and Statement XI of this Report —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|--------------|--------------------------------------------|-----|----------------------------------|-----|------------|-----|--------------------------------------|-----|------------|-----|-----------------------------------|-----|
| Circle | CULTIVATED BY THE OWNERS OF HELD RENT FREE | | HELD BY OCCUPANCY TENANTS PAYING | | | | HELD BY NON-OCCUPANCY TENANTS PAYING | | | | AREA UNDER COMPETITIVE CASH RENTS | |
| | | | Cash rents | | Kind rents | | Cash rents | | Kind rents | | Settlement | Now |
| | Settlement | Now | Settlement | Now | Settlement | Now | Settlement | Now | Settlement | Now | | |
| | | | | | | | | | | | | |
| Bangar | 68 | 65 | 7 | 8 | | | 25 | 21 | | 6 | 6 | 13 |
| Bhader | 65 | 54 | 13 | 14 | | | 22 | 27 | | 5 | 6 | 19 |
| Dahar Mitha | 68 | 52 | 7 | 6 | | | 25 | 35 | | 7 | 12 | 31 |
| Dahar Khari | 78 | 55 | 7 | 6 | | | 13 | 26 | | 13 | 12 | 21 |
| Chiknot | 84 | 61 | 4 | 7 | | | 11 | 15 | 1 | 17 | 1 | 6 |
| Total Tahsil | 70 | 59 | 8 | 9 | | | 22 | 25 | | 7 | 6 | 18 |

The decrease in the area cultivated by the owners themselves and the increase in the area held by non-occupancy tenants paying cash rents is due to the large area under mortgage. Batai is an increasingly popular form of rent—especially on the hard black clay soil of the Chiknot Circle, where the produce is very precarious and cash rents are almost unknown.

The area paying competitive cash rents is, as we should expect, much larger than at settlement, but owing to the pressure of population on the soil is not very large. The large percentage in the Dahar Mitha Circle is due to the whole of the large village of Doha being cash rented. Most of the rents in column 13 are unfortunately paid to mortgagees.

25 Statement XI shows the mode in which kind rents are paid. As the area under batai is so small, the data are very meagre. Here, as in Palwal, the share of an irrigated chahi crop is one-third. From the statement it appears as if the share were one-half, but this is because most of the rents are of unirrigated crops grown on chahi land.

The landlord's share of an irrigated canal crop is, as in Palwal, one-half, but he pays half the cost of the seed and half the canal dues. In this tahsil no exception is made in the case of sugarcane, of which the share is also one-half, but here the landlord shares all the expenses of cultivation instead of only the expenses specified in paragraph 24 of the Palwal Report. The landlord's share of cane is therefore no higher than in Palwal. The share of all crops other than irrigated crops grown on chahi and nahri land is one-half, as in Palwal, and as in

Mandikhera and Chiknot Circles, separate figures for the present Dahar and Chiknot Circles are not available

| 1 | 2 | 3 | 4 | 5 |
|---------------------------------|----------------------------------------------------------------------------|--------|--------|---------------|
| Year | INCIDENCE OF CASH RENTS PAID BY TENANTS AT-WILL NOT BEING AT REVENUE RENTS | | | |
| | Bangar | Bhuder | Dahar | Total Tahsil. |
| | Rs a p | Rs a p | Rs a p | Rs a p |
| 1891-92 | 4 1 0 | 3 8 0 | 4 3 0 | 4 0 0 |
| 1892-93 | 3 1 0 | 3 2 0 | 4 6 0 | 3 10 0 |
| 1893-94 | 3 2 0 | 2 15 0 | 4 11 0 | 3 13 0 |
| 1894-95 | 3 2 0 | 2 13 0 | 4 10 0 | 3 12 0 |
| 1895-96 | 3 3 0 | 2 8 0 | 4 11 0 | 3 12 0 |
| 1896-97 | 3 4 0 | 2 9 0 | 4 13 0 | 3 13 0 |
| 1897-98 | 3 7 0 | 2 9 0 | 5 3 0 | 4 1 0 |
| 1898-99 | 3 9 0 | 2 13 0 | 3 2 0 | 3 3 0 |
| 1899-00 | 3 11 0 | 2 11 0 | 5 6 0 | 4 3 0 |
| 1900-01 | 3 12 0 | 2 12 0 | 5 8 0 | 4 5 0 |
| 1901-02 | 3 9 0 | 2 12 0 | 5 11 0 | 4 6 0 |
| 1902-03 | 3 3 0 | 2 8 0 | 6 7 0 | 4 8 0 |
| 1903-04 | 3 9 0 | 2 8 0 | 5 6 0 | 4 3 0 |
| 1904-05 | 3 12 0 | 2 9 0 | 5 9 0 | 4 4 0 |
| 1905-06 | 3 12 0 | 2 10 0 | 5 13 0 | 4 7 0 |
| Rise per cent. since settlement | 54 | 24 | 86 | 80 |

The percentage of increase is enormous, and in the Dahar Circle does not correspond to an equivalent increase in the value of land. There the rents have been forced up by rack-renting mortgagees and by the severe pressure of population on the soil. I proceed to put in the usual table abstracted from statements XIV and XV shewing the result of the attestation of competitive rents at village inspections —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------|-------------|--------|--------|--------|--------|----------------|--------|--------|
| Circle | Detail | Chahi | Nahri | Abi | Dahri | Chiknot Narmot | Magda | Bhur |
| | | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p |
| Bangar | Total rents | 4 11 0 | 4 10 0 | | | 3 10 0 | 3 10 0 | 2 0 0 |
| | Corrected | 4 3 0 | 4 3 0 | | | 3 13 0 | 3 10 0 | 1 14 0 |
| Bhuder | Total rents | 4 13 0 | | 7 14 0 | 5 13 0 | 3 9 0 | 3 9 0 | 2 2 0 |
| | Corrected | 5 11 0 | | 6 2 0 | 5 9 0 | 3 10 0 | 3 10 0 | 1 15 0 |
| Dahar | Total rents | 7 14 0 | | | 7 12 0 | 4 4 0 | 6 1 0 | 3 6 0 |
| | Corrected | 7 11 0 | | | 6 15 0 | 3 14 0 | 4 6 0 | 2 7 0 |
| Mitha | Total rents | 7 0 0 | | 6 3 0 | 6 11 0 | 6 8 0 | 6 8 0 | 5 14 0 |
| | Corrected | 7 3 0 | | 6 4 0 | 6 10 0 | 6 7 0 | 6 7 0 | 5 10 0 |
| Khari | Total rents | 2 11 0 | | | | 3 10 0 | | |
| | Corrected | 3 2 0 | | | | 3 9 0 | | |

NOTE.—Nahri includes chahi nahri.

There has not therefore been very much alteration in any circle except Dahar Mitha where the whole rents of the rack-rented village of Doha have been excluded.

In the Bangar Circle there is very little difference in the rent of any soil except bhur. The chahi and nahri are both inferior, and as a rule the same rent is taken on them as on loam. The prevailing rent rate on all soils, except bhur, is Rs 2 per pakka bigha = Rs 3-5-0 per acre. In canal villages and in villages with a better class of barani soil Rs 3 per pakka bigha is often taken. On bhur the rate is Re 1 on inferior and Re 1-8-0 on average land. In this circle most of the recorded rents are full fair rents, and the corrected rents adequately represent the letting value of the land.

In the Bhuder Circle the customary rates on bhur and loam are the same as in the Bangar Circle, and are fair for the soils, but the chahi is superior, and, as we should expect, a much higher chahi rent is taken. The customary chahi

Allowing for possible differences of soil classification the rent rates in tahsil Ramgarh correspond very closely with those in the Dahar Mitha Circle. The bhur rates are lower, but Mr O'Dwyer reduced the rates as they stood to allow for years in which this soil was not cultivated. The attested rents on this soil ranged from Rs 1-11-0 to Rs 5, and the average rent rate was probably not lower than ours.

Tahsil Kama adjoins the Bangar Circle and though the chahi and dahri rates are much higher, the barani rates correspond with remarkable closeness: the difference in the chahi and dahri is probably due to a difference of classification. Tahsil Pahari adjoins the Bangar and Bhuder Circles and Tahsil Gopalgarh the Bhuder Circle. The rates in Gopalgarh correspond with extraordinary closeness to those of the Bhuder Circle, but those of Pahari are very much higher, and resemble the rates in Dahar Mitha. From Mr O'Dwyer's description on pages 9, and 10 of his Assessment Report of the northern tahsils of the Bhartpur state I gather that all these tahsils are physically superior to the Bangar and Bhuder Circles of the Ferozpur tahsil, and the correspondence in the rents may therefore be accidental, being due in Kama and Gopalgarh to the absence, as stated by Mr. O'Dwyer, of competition.

CHAPTER V — HALF-NET-ASSETS BASED ON BATAI

27 In the Rewari and Palwal tahsils the years selected for the produce estimate were the years 1898-99 to 1903-04, excluding the famine year of 1899-1900, but in this tahsil, where the rabi cropping is so important, these years are not representative owing to the series of bad rabis. With the approval of the Settlement Commissioner I have substituted the five years 1900-01 to 1904-05, which give a much better average. The following is a brief description of the harvests.

Kharif 1900 — Well distributed rain in June, July and August was followed by a deluge in September which gave a bumper harvest in all parts of the tahsil.

Rabi 1901 — Very large sowings were made as the result of the heavy rain in September, the winter rains were excellent, and a fine harvest was reaped. Wells and the canal were very little used.

Kharif 1901 — Sowings were normal, and as good rain fell in July and August, the crop promised well, but the monsoon withdrew at the end of August and, except on canal lands, the crops failed and only an eight-anna harvest was reaped.

Rabi 1902 — As no rain fell in September the area sown was very small, and as the winter rains entirely failed the crop was nowhere better than an eight-anna one, and in parts of the tahsil conditions approaching scarcity prevailed.

Kharif 1902 — Good rain in June made large sowings possible. Excellent rain fell in July and August, and sufficient in September. The result was a good harvest in all circles.

Rabi 1903 — A fairly large area was sown, but as the winter rains again failed the crop was everywhere below average.

Kharif 1903 — The rains began late and were scanty, sowings were not extensive, but as rain was very well distributed most of the crops matured. The harvest was slightly below average in all circles except Dahar Khari and Chiknot, where for some reason or other it was good.

Rabi 1904 — Very little rain fell until the first week in March, when there was a good shower, which saved the irrigated crops, but was too late to save the barani crops, most of which completely failed in all circles, the harvest was only eight annas.

Marif 1904—Good rain in May, June and July permitted of early and extensive sowings. There was a long break at the end of August and beginning of September, but a cyclonic storm on September 9th gave excellent rain and saved the harvest. The cereals and pulses were damaged by excessive rain, but the outturn of cotton was excellent, and on the whole the harvest was everywhere much above average.

Hala 1905—The heavy rain in September made extensive sowings possible, and very unusual rain in November led to a further extension of the crop. Good rain was received at intervals, and the harvest promised to exceed the record both as regards quality and quantity, but severe and unprecedented frost at the end of January did great damage, from which the oil-seeds and early-sown barley never recovered. The other crops recovered after a good shower in March, and in this taluk, which owing to its hills is more sheltered from frost than any other, the harvest was a good one.

The character of the harvests may be summarized in the following table—

| 1 | 2 | 3 |
|---------|---------------|---------------|
| Year | Marif | Hala |
| 1901/02 | Very good | Very good |
| 1902/03 | Bad | Bad |
| 1903/04 | Good | Below average |
| 1904/05 | Below average | Bad |
| 1905/06 | Good | Good |

Referring to Statement X, it will be seen that these years give a result which is nearly average in the Bechar and Bhilai Circle, while the Marif is the chief crop, but which is 4, 16 and 6 per cent below average in the other end—respectively, when the percentage of cotton is taken as 100, and the two other crops have more than one-fifth and the equal half.

23. The normal percentage of crops failed to the total area sown may be taken as 10 per cent in all circles, except the Bechar, where, as in the Bechar Taluk (see Appendix to part I, paragraph 27), the percentage of the failure of the crops is 10 per cent in all villages, and 10 per cent in the whole of the crop. The normal percentage of the crops is 10 per cent in all villages, and 10 per cent in the whole of the crop. The normal percentage of the crops is 10 per cent in all villages, and 10 per cent in the whole of the crop.

| 1 | 2 | 3 |
|-------------------|---------------------------------------------------|---------------------------------------------------|
| Character of crop | Percentage of crops failed to the total area sown | Percentage of crops failed to the total area sown |
| 1. Cotton | 10 | 10 |
| 2. Oil-seeds | 10 | 10 |
| 3. Cereals | 10 | 10 |

Allowing for possible differences of soil classification the rent rates in tahsil Ramgarh correspond very closely with those in the Dahar Mitha Circle. The bhur rates are lower, but Mr O'Dwyer reduced the rates as they stood to allow for years in which this soil was not cultivated. The attested rents on this soil ranged from Rs 1-11-0 to Rs 5, and the average rent rate was probably not lower than ours.

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CHAPTER V.—HALF-NET-ASSETS BASED ON BATAI

27 In the Rewari and Palwal tahsils the years selected for the produce estimate were the years 1898-99 to 1903-04, excluding the famine year of 1899-1900, but in this tahsil, where the rabi cropping is so important, these years are not representative owing to the series of bad rabis. With the approval of the Settlement Commissioner I have substituted the five years 1900-01 to 1904-05, which give a much better average. The following is a brief description of the harvests.

Kharif 1900 — Well distributed rain in June, July and August was followed by a deluge in September which gave a bumper harvest in all parts of the tahsil.

Rabi 1901 — Very large sowings were made as the result of the heavy rain in September, the winter rains were excellent, and a fine harvest was reaped. wells and the canal were very little used.

Kharif 1901 — Sowings were normal, and as good rain fell in July and August, the crop promised well, but the monsoon withdrew at the end of August and, except on canal lands, the crops failed and only an eight-anna harvest was reaped.

Rabi 1902 — As no rain fell in September the area sown was very small, and as the winter rains entirely failed the crop was nowhere better than an eight-anna one, and in parts of the tahsil conditions approaching scarcity prevailed.

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The character of the harvests may be summarized in the following table —

| 1 | | | | 2 | | | 3 | | |
|---------|-----|----|----|---------------|--|--|---------------|--|--|
| Year | | | | <i>Kharif</i> | | | <i>Rabi</i> | | |
| 1900 01 | ... | . | .. | Very good | | | Very good | | |
| 1901-02 | . | .. | | Bad .. . | | | Bad | | |
| 1902-03 | | | | Good | | | Below average | | |
| 1903 04 | . | | | Below average | | | Bad | | |
| 1904-05 | | | .. | Good . .. | | | Good | | |

Referring to Statement X, it will be seen that these years give a result which is nearly average in the Bangar and Bhuder Circles, where the *kharif* is the chief crop, but which is 4, 5½ and 6 per cent below average in the other circles respectively, where the percentage of *rabi* crops is much larger, and the bad *rabis* have more than counterbalanced the good *kharifs*.

28. The recorded percentages of crops failed to the total area sown may be taken to be correct in all circles, except the Bangar, where, as in the Palwal Tahsil (*vide* Assessment Report, paragraph 27), the under-estimate of the failed area of irrigated and unirrigated crops in canal villages seriously affects the reliability of the cropping figures. I compare below the recorded percentages of failed crops in this circle with what I think it ought to be —

| 1 | | | | 2 | 3 |
|----------------------|-----|---|-----|------------|------|
| Class of crop | | | | PERCENTAGE | |
| | | | | Recorded. | Real |
| Irrigated from wells | ... | . | .. | 4 | 8 |
| " " Canal | | | ... | 3 | 15 |
| Unirrigated | | | . | 20 | 30 |

The recorded percentage of failed *chahi* crops is less than in the Bhuder and Dahai-Mitha Circles, where the water is much sweeter, and I do not think the correct percentage can really be less than 8. I took 10 per cent. as the correct percentage of failed *nahri* crops in the Palwal Tahsil. In this tahsil, where all the conditions make for inferiority, I do not think it can be less than 15 per

cent. Similarly, 20 per cent is much too low a percentage for the dry loam of this circle, and 30 per cent is a moderate estimate. The same remarks apply in regard to mixed crops as in the Palwal tahsil (*vide* Assessment Report, paragraph 27 (b)).

29 Statement XII gives the data on which the assumed yields are based.

Yields.

In many cases the results of experiments are satisfactory, but in others they are not owing either to the abnormal nature of the harvests under observation or to the ineradicable tendency of subordinate officials to select the best fields.

I am not inclined to attach much value to any experiment which I have not myself inspected, and I have supplemented the information derived from experiments by constant enquiries from the people at village inspections. The yields assumed by Mr Channing at last settlement are entered in Statement XII for reference. They seem to me in most cases rather too high.

I proceed to discuss the yield of each important crop separately, taking them in the order in which they are entered in Statement XII as there is very little difference in the yield of chiknot, narmot and magda, I have classed these soils together under the name of barani.

This crop is well suited to the soil of all circles except Bhuder. It

Jowar, 9 per cent

grows especially well in the rich clay soil of the centre of the valley. In inferior or sandy soil it is sown rather thick and grown half for grain and half for fodder, and this custom must be borne in mind in considering the yield in the various circles. Unfortunately experiments gave very little help in determining the yield. Excessive September rainfall seriously reduced the yield of grain both in 1904 and 1906, and in 1905 owing to the total failure of the rains there was no crop at all. In estimating the yield of this crop therefore I am dependent entirely on enquiries from zamindars and officials, and on experiments conducted in neighbouring tracts.

Jowar is grown to such a very small extent on irrigated chahi and nahri lands, on dahri and on bhur, that the assumed yields on these soils are of very little importance, and do not require discussion. On barani land in the Bangar Circle I have adopted a yield of 200 sers; this is the same as the yield assumed for the Bangar Circle of the Palwal Tahsil. It is a lower yield than I have adopted in the Dahar Circles because canal irrigation by saturating the subsoil affects the yield of jowar, and as the soil is inferior, the crop is sown rather thick and yields less grain. In the Bhuder Circle the loam is light, and I have adopted the same yield as in the Bangar Circle. In the Dahar Mitha Circle I have assumed 260 sers, as the soil is of better quality, and in the Dahar Khari Circle, where the barani soil is a rich loam or clay, and a really heavy yield is obtained—280 sers. In the Chiknot Circle I have assumed 240 sers. Mr Channing took 320 sers in all circles except Bhuder, but I do not think such a high estimate is justified, and it is certainly never admitted to be an average yield by the zamindars. Jowar is a delicate crop and its liability to suffer from the effects of drought in bad years and of excessive rain in good years makes moderation in fixing the yield essential.

This is the chief crop of the year, and it is most important to

Bajra 28 per cent.

determine its yield accurately. In this tahsil experiments give very little assistance in determining the yield, but in other parts of the district a number of reliable experiments have been performed.

The average yield of unmanured bajra is about 200 sers on all light barani soils, except inferior bhur. I have assumed a yield of 160 sers on barani and 140 sers on bhur in the Bangar and Bhuder Circles, where the loam and bhur are both inferior.

In the Dahar Circles, where the best bajra grows, I have assumed 220 and 240 sers, respectively, on barani and 200 sers on bhur. Bajra does not do well in a stiff clay soil, and in the Chiknot Circle I have assumed 160 sers on barani, which is the same as the bhur yield in that circle.

For the irrigated soils and for abī and daharī I have taken slighter higher yields than on baranī

Mr Channing took 240 sers in all circles except Chiknot, where he took 160 sers. His experiments only gave an average of 200 sers, but the season in which they were performed was unfavourable on account of excessive rain, and he consequently went above the result of his experiments. In the Bangar and Bhuder Circles, especially Bhuder, the estimate seems much too high for unmanured bajra.

The area under this crop is very small, and no experiment has ever been performed. I assume 320 sers as the irrigated and 240 as the baranī yield in all circles where maize is grown. For bhur I assume 200 sers.

Maize,—per cent

The area under pulses other than guar, which is grown exclusively for fodder, and for which no yield is assumed, is very small. Urd is grown with jowar and mung, and moth with bajra. In the Bangar, Bhuder and Chiknot Circles I have taken the same yields for these pulses as in the Bangar Circle of Palwal, while in the Dahar Circles I have taken 40 sers more. Chaula is grown either with bajra or in very inferior bhur alone. It is of importance only in the Bhuder Circle. In the Bangar, Bhuder and Chiknot Circles I have taken the same yield as in Palwal, and in the other two circles 40 sers more. These estimates are low as compared with Mr. Channing's, but moderation is essential in view of the method of cultivating and of recording these mixed crops.

Pulses, 4 per cent.

Til is generally grown with cotton or jowar, but it is also sometimes grown alone. Experiments in the Dahar Mitha Circle indicate a yield of 180 sers; but as it is generally grown as a mixed crop, I think a low yield should be assumed, and I propose 140 sers on all soils and in all circles. This is the same yield as I assumed in the Bangar Circle of Palwal.

Til, 1 per cent

No experiment has ever been performed in this tahsil, but in the Bangar Circle of Palwal experiments indicate an average yield of 936 sers for irrigated cane, and in that tahsil I assumed a yield of 840 sers. In this tahsil the cultivation of cane is very inferior, and I do not think it would be safe to assume a higher yield than 640 sers, which is the highest yield ever admitted by the zamindars.

Cane, 1 per cent

Cotton requires good cultivation, and as the Meos are inferior as cultivators to the Jats, the yield of cotton in this tahsil is, other things being equal, inferior to that of the Palwal tahsil. In the Bangar Circle the soil and cultivation are both inferior to those of Palwal. For baranī cotton in this circle I assume a yield of 160 sers, or 40 sers less than in Palwal. In this circle I do not think there is any difference between the yield of canal irrigated and baranī cotton, and I assume the same yield. This assumption is justified by the result of experiments which gave an average yield of only 184 sers for canal cotton. For the inferior bhur of this circle I assume a yield of 100 sers only. In the Bhuder Circle I adopt the same yields on baranī and bhur as in the Bangar Circle.

Cotton, 8 per cent

The best cotton grows in the low-lying, fertile lands of the valley. In the Dahar Mitha Circle I assume 200 sers for baranī and 120 sers for bhur. Both these estimates are justified by experiments and are exactly the same as I made in the Bangar Circle of Palwal, which, as regards produce, this circle closely resembles. The yield of cotton in the Dahar Khari Circle is superior to that of the Dahar Mitha Circle, and I assume 20 sers more on baranī than in that circle. For bhur I take the same yield. The yield of cotton is very poor in the stiff clay of the Chiknot Circle, and I assume 140 sers only, which is less than in any other circle. For the bhur of this circle I assume 100 sers, as in Bangar and Bhuder.

I have generally taken the same yields on *chahi* and flooded land, and the yield on these soils is in nearly all circles assumed to be 40 sers more than the *barani* yield. Mr Channing made no distinction between irrigated and unirrigated cotton. He took 200 sers in the Landoha and Mandikhera Circles, 160 sers in the Chiknot and Bangar Circles, and 140 sers in the Bhuder Circle. These seem to me very fair estimates, and they agree closely with the yields which I have now assumed.

The dry soil of the Bangar Circle is not suited to wheat. It is somewhat difficult to estimate the average yield of *chahi* wheat in this circle, because the quality of the *chahi* varies greatly. In the east of the circle the wells are nearly all salt, and irrigation is very inferior, while under the hills on the west the soil is better, and benefits by drainage water from the hills. The *chahi* of the villages lying in the bed of the Lohinga drainage canal is especially good. I assume a *chahi* yield of 400 sers, which is 80 sers less than the assumed yield in the Palwal Bangar, where the *chahi* is much superior. Mr Channing took 520 sers, but this seems too high an estimate for the inferior *chahi* of this circle. The yield of canal wheat is very inferior, and I assume a yield of 320 sers. Experiments only indicate a yield of 300 sers, but the years in which the experiments were made were both below average. The assumed yield is 20 per cent. below that assumed in Palwal, and seems a sufficiently moderate estimate. The *dahri* of this circle is inferior, and I assume a yield of 360 sers only. For *barani* and *bhur* I assume 240 and 200 sers respectively.

In the Bhuder Circle the *chahi* and *dahri* are both better than in the Bangar Circle, and I assume 80 sers more for the *chahi* and 40 sers more for the *dahri*. For *barani* and *bhur* I take the same yields.

The *chahi* wheat of the Dahar Mitha Circle is the best in the tahsil, and Mr Channing assumed the very high yield of 600 sers. I think this was a slight over-estimate. I assume 560. An experiment conducted this *rabi* (1907) yielded only 409 sers per acre, but the produce was severely damaged by rust and by dry hot winds which blew in the first week of April. In this circle the yield of *dahri* is very good, and I assume 440 sers. The *dahri* experiment conducted this harvest was below average for the same reason as the *chahi* experiment. For *barani* and *bhur* I assume 280 and 200 sers respectively.

In the Dahar Khari Circle the *chahi* is good, though as the water is salt, it is inferior to that of the Dahar Mitha Circle, and I assume 40 sers less than in that circle. The *dahri* is also inferior to that of the Dahar Mitha Circle, and so I assume a lower *dahri* yield, while the yield of *barani* wheat is better than anywhere else in the tahsil, as the strong moist clay soil is especially suited to wheat. For *barani* I assume 320 sers and for *bhur* 240 sers.

In the Chiknot Circle the *chahi* is very inferior, and I have assumed a very low *chahi* yield (320 sers). For *abi* and *dahri* I assume 360 sers, for *barani* and *bhur* 280 and 200 sers respectively. The *barani* yield may seem high, but wheat is the crop best suited to the black chiknot of this circle, and either alone or in the form of *gochri* is almost the only *barani* *rabi* crop grown.

After *bajra* this is the most important crop of the year. As an irrigated crop it is almost always grown alone, while as an unirrigated crop it is, except on inferior *bhur*, generally grown in the form of *bejhar*. Experiments are again of very little use, and in estimating the various yields I have been guided chiefly by enquiry and observation. Where the soil is dry or light, as in the Bangar and Bhuder Circles, the yield of barley is considerably higher than that of wheat, while in the moist, low-lying soils of the valley, which are especially suited to wheat, there is much less difference between the yields of the two crops.

For the *chahi* yield I have taken 480 sers in the Bangar Circle, 600 sers in the Bhuder, 640 sers in the Dahar Khari Circle and 680 sers in the Dahar Mitha Circle. In the Chiknot Circle I have taken 400 sers only. For the *dahri* yield I have taken 400 sers, which is 80 sers less than in Palwal, experiments indicate a much higher yield of canal barley, but the crops of both the years

under experiment were much above average. For the abī and dahri yields I have taken 40 sers more than the wheat yield in the Bangar, Bhuder and Dahar Mitha Circles, 80 sers more in the Dahar Khari Circle, and the same as the wheat yield in the Chiknot Circle. For the barani yield I have taken 280 sers in the Bangar, Bhuder and Chiknot Circles, 360 in the Dahar Mitha Circle, and 400 in the Dahar Khari Circle. For bbur I have taken 240 sers in all circles except Dahar Khari, where I have assumed 280 sers.

Gram, 13 per cent—Except in the Bangar Circle, gram is chiefly grown in the form of bejhar. In the Bangar Circle it is generally grown alone as a second crop after bajra, but the yield of "dofash" gram does not seem to be much less than when it is grown in fallow land, as it is only grown as a second crop in seasons which are above the average. The fact that the crop statistics do not distinguish between bejhar and gram grown alone, or between gram grown in fallow land and "dofash" gram makes it somewhat difficult to estimate the yield. It is very heavy in the moist low-lying lands of the valley, but is not so good in the Bangar, Bhuder and Chiknot Circles. In the Bangar and Bhuder Circles, I assume a barani yield of 280 sers, in the Dahar Mitha Circle 360 sers, in the Dahar Khari Circle 400 sers, and in the Chiknot Circle, where the soil is not suited to gram, 240 sers. In the inferior bbur of the Bangar, Bhuder and Chiknot Circles I assume 200 sers, and in the good bbur of the two Dahar Circles 240 sers. In all circles I have assumed about 40 sers more on chahi, abī and dahri than on barani. There is a small area of canal irrigated gram, but the yield of this is very inferior, and I assume only 280 sers, or the same as the barani yield.

Gojra and Gochni, 5 per cent.—The yield of gojra is assumed to be half the combined yields of wheat and barley. On dahri and barani land wheat is almost invariably sown in the form of gochni, for gochni yields intermediate between those of wheat and gram have been assumed, but approximating nearer to the wheat yield as the proportion of wheat is larger than that of gram.

Rabi oil-seeds, 4 per cent.—Saison and taramna are the only oil-seeds grown. I assume the same yields for both. On chahi, nahri and dahri I assume 200 sers and on barani and bbur 160 sers in all circles. The barani yields are supported by the results of a number of experiments, which indicate a yield of 180 sers in all circles and on all soils. A good field of these crops will yield 240 sers, but they—especially saison—are delicate and precarious crops, liable to suffer from the effects of drought, frost and excessive rain, and a full yield is very rarely obtained. I do not think it would be safe to go above the assumed yields, which are the same as I adopted in Palwal.

Others, 11 per cent—It is impossible to assume yields for the miscellaneous crops grown at both harvests, and to these and to the fodder crops I have assigned cash values.

For purposes of comparison I append, below, in sers per acre, the yields of the principal crops assumed by Mr. O'Dwyer in the Ramgarh tahsil of the Alwar State, which adjoins and resembles the Dahar Mitha Circle of this tahsil, and the three adjoining tahsils of Bhartpur.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|----------|--------------------|-------|--------|-------------------------|-------|--------|------|-------------------|-------|--------|------|-----------------|-------|--------|-------|
| Crops | RANGARH
(ALWAR) | | | GOPALGARH
(BHARTPUR) | | | | PAHARI (BHARTPUR) | | | | KANA (BHARTPUR) | | | |
| | Chahi | Dahri | Barani | Chahi | Dahri | Barani | Bbur | Chahi | Dahri | Barani | Bbur | Chahi | Dahri | Barani | Bbur. |
| Jowar | 640 | 480 | 320 | 400 | 400 | 400 | 400 | 400 | 400 | 300 | 300 | 350 | 300 | 300 | 250 |
| Bajra | 512 | 384 | 256 | 500 | 400 | 300 | 250 | 500 | 400 | 300 | 250 | 500 | 300 | 300 | 250 |
| Cotton | 320 | 272 | 150 | 400 | 300 | 300 | 300 | 400 | 250 | 250 | 250 | 400 | 250 | 250 | |
| Pulses | | 320 | 208 | 250 | 250 | 250 | 150 | 250 | 250 | 250 | 150 | | 250 | 250 | 150 |
| Wheat | 608 | 528 | 256 | 800 | 600 | 400 | | 700 | 600 | 400 | | 750 | 600 | 400 | |
| Barley | 978 | 640 | 384 | 900 | 700 | 400 | 400 | 700 | 700 | 400 | 400 | 850 | 700 | 450 | |
| Gram | 384 | 336 | 256 | 700 | 700 | 400 | 400 | 700 | 700 | 400 | 400 | 700 | 700 | 400 | 400 |
| Mixtures | 736 | 592 | 320 | 600 | 600 | 500 | 500 | 600 | 600 | 500 | | 700 | | 500 | 500 |

Comparing first the yields of the Ramgarh tahsil and of the Dahar Mitha Circle it will be seen that there are considerable differences between these yields and those which I have assumed. The yields of jowar, bajra and pulses assumed by Mr O'Dwyer are higher than mine and agree with Mr Channing's. I cannot however help thinking that for unmanured jowar and bajra my yields are not too low. Of the remaining barani yields Mr O'Dwyer's estimates for wheat, barley and mixtures are about the same as mine, while those for cotton and gram are lower. The chief difference however lies in the chahi and dahri yields, which are in the case of barley enormously high as compared with mine. The dahri of Ramgarh is no doubt superior owing to the action of the Atria Bund, which ensures more regular flooding in Alwar, but I cannot believe that 24 maunds is an average chahi barley yield for Meo cultivators. The Bhartpur yields are enormously high all round as compared with those of Gurgaon, and the soil must be remarkably good to produce crops giving such a high average yield. The cotton, wheat and gram yields are almost incredible. With all due deference to such an authority as Mr O'Dwyer I cannot help thinking that the Bhartpur and Alwar yields are too high, and it is a significant fact that in every case the net assets based on kind-rents largely exceeded the estimate based on cash-rents.

At the same time it must be admitted that the standard of Meo cultivation is much higher in Alwar and Bhartpur than in Gurgaon. The high assessment, the solidarity of the village communities, and the absence of demoralizing influences, such as facilities for mortgaging and borrowing, combine to make the Meo a much more industrious cultivator in a Native State than in British India.

As a share of the straw is always taken when the rent is batai, I have included the value of the straw in the Produce Estimate. I have assumed the following cash-rates per maund for the straw.—

| | | | |
|----------------------------------------------|----|---|---|
| Jowar and rabi cereals | Rs | a | p |
| | 0 | 3 | 0 |
| All other crops of which the straw is shared | 0 | 2 | 0 |

The outturn of straw is assumed to be equal to the outturn of grain in the case of all crops except jowar, bajra and wheat. The outturn of jowar is assumed to be three times, of bajra twice and of wheat one-and-a-quarter times that of the grain.

30 The sanctioned prices of the present settlement are given below in annas per maund and compared with those assumed at last settlement —

| Prices. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------------------------------------------------------|---|-------|-------|------|------|-----|------|--------|--------|--------------------------------|------|--------|-----------|
| | | Jowar | Bajra | Mang | Moth | Til | Cane | Cotton | Wheat. | Barley | Gram | Sarson | Taramira. |
| Prices at last settlement | | 16 | 18 | 18 | 15 | 40 | | 53 | 21 | 14 ¹ / ₂ | 16 | 27 | 17 |
| Prices sanctioned now | | 20 | 23 | 30 | 22 | 60 | 45 | 64 | 32 | 22 ¹ / ₂ | 23 | 45 | 32 |
| Rise per cent | | 25 | 28 | 67 | 47 | 50 | | 21 | 52 | 52 | 44 | 67 | 68 |
| Assumed by Mr O'Dwyer for tahsil Ramgarh | | 21 | 26 | 22 | | 58 | | 58 | 32 | 23 | 24 | 43 | |
| Assumed by Mr O'Dwyer for Nothern tahsils, Bhartpur State | | 21 | 25 | 26 | | | | 58 | 30 | 34 | 21 | 46 | |

Mr Channing's assumed prices were the average harvest prices of the twenty years 1854-1873, while those sanctioned now are based chiefly on the harvest prices of the last ten years extracted from banias' books, excluding years of scarcity, in both cases therefore they are the prices at which the zamindar actually disposed of his produce. The prices now sanctioned are for the whole district. The prices current in each tahsil are given in Statements III and IV of Mr Hamilton's report.

Mr. Channing's prices were on the whole lower in Firozpur than in any other part of the district, and we should have expected the present prices to be lower than in the other tahsils which are much better off as regards communica-

tions. As remarked however by Mr. Hamilton we can only accept the fact that they are not. That the assumed prices are not too high is, I think, indicated by the comparison with Mr. O'Dwyer's prices, which are equal to, or higher than, our prices in the case of all important crops except cotton

The reason of the low price of cotton is not explained, and the Gurgaon price of this staple is fully justified by the data given in Statement III of the Preliminary Report on prices.

The all-round rise in prices according to the method employed by Mr. Hamilton in the Preliminary Report, which is in effect the same as that described in paragraph 376 of the Settlement Manual, is 39 per cent, or higher than anywhere else in the district

Wheat, cotton, oilseeds, and in the Bangar Circle cane, are the chief revenue-paying crops, and they only occupy about 17 per cent of the total area under crops. In this tahsil, where the Meos are thriftless and improvident, and are in the habit of speculating with their produce, where the pressure of population on the soil is severe, and where more than four-fifths of the crops are food crops, which in years of scarcity have to be bought from the bania at famine prices, the effective rise of prices cannot be very large, although as pointed out in previous reports the question of the effective rise of prices is not of much importance in this district where the assessment is based on cash rents.

31. I propose to deal with fodder crops as in the Palwal Tahsil (Assessment Report, paragraph 30). Here also the kind rent data are so meagre that it

is impossible to say what crops or portions of crops would, if batai rents were general, be appropriated by tenants before division. I propose therefore, as in Palwal, to make no deduction of any kind from the landlord's share, but in estimating the value of the Government share to deduct those crops or portions of crops which are consumed for fodder and form part of the cost of production

The whole value of guar, chari, carrots and turnips, which are fodder crops pure and simple, as well as of all miscellaneous crops classed as fodder, will be deducted. The straw which I have taken into account in framing my Gross Produce Estimate is nearly always consumed for fodder, and its value will therefore not be included in the Government share the above constitute the fodder supply proper, in years of scarcity, when the ordinary fodder crops prove insufficient, they are supplemented by portions of the food crops. In this tahsil, where grazing is so scarce, the extent to which grain crops have to be cut for fodder is considerable. Oilseeds and pulses are the crops most largely sacrificed, but a certain amount of jowar, barley and gram is also cut

I estimate the percentages as follows --

| 1 | 2 | 3 | 4 | 5 | 6 |
|--------|--------|---------|-------------|-------------|---------|
| | Bangar | Blunder | Dahar Mitha | Dahar Khari | Chiknot |
| Sarson | 50 | 50 | 50 | 50 | 50 |
| Pulses | 33½ | 33½ | 33½ | 33½ | 33½ |
| Jowar | 12½ | 15 | 12½ | 15 | 15 |
| Barley | 5 | 5 | 5 | 10 | 10 |
| Gram | 5 | 5 | 5 | 10 | 10 |

In the Blunder Circle the soil is light and in the Dahar Khari and Chiknot Circles grazing is exceptionally scarce, hence the jowar deduction is larger in these circles than in the others. Owing to the scarcity of grazing I have also made a larger barley and gram deduction in the two last named circles. These deductions compare with the following deductions made by Mr. O'Dwyer in the Ramgarh tahsil of Alwar --

| | Per cent |
|--------------------------------|----------|
| Rabi oilseeds, moth and masina | 25 |
| Roots | 50 |
| Jowar | 10 |
| Barley | 5 |

In Alwar sarson and tara were not recorded separately Tara is never cut for fodder, and a deduction of 25 per cent from the total area under *rab* oilseeds is equivalent to my 50 per cent deduction from sarson The other deductions agree fairly closely My gram deduction is supported by the testimony of the zamindars, who say that gram and barley are cut equally for fodder

32 In this tahsil, where the rents are in kind, the menials are invariably paid by the tenants Whether this would be the case if kind rents were the rule instead of the exception is doubtful, but it was the case at last settlement in all the tahsils with good soil, and as it is the case now no deduction can properly be made from the Produce Estimate on account of menials' dues In view however of the fact that more than half the land is cultivated by self-cultivating owners, who have to pay kamins' dues, allowance must be made in assessing

The only agricultural kamins are the *klāti* (carpenter), *lohar* (blacksmith), and *chumar* (leather-worker), the last of whom helps to some extent in the field As it is not proposed to make any deduction on their account from the Produce Estimate it is unnecessary to state their dues in detail, but the percentages of the produce of each harvest which they absorb are as follows —

| 1 | 2 | 3 |
|--------------|--------|------|
| Circle | Kharif | Rabi |
| Bangar | 4 | 14 |
| Bhuder | 44 | 17 |
| Dahar Mitba | 31 | 12 |
| Dahar Khari | 31 | 13 |
| Chiknot | 31 | 19 |
| Total Tahsil | 35 | 15 |

The Meo generally has a large family, and is much too poor to employ hired labour The only agricultural operations which are performed by hired labourers are the picking of cotton, the hoeing of sugarcane, and the making of *gur*

Cotton-pickers receive one-tenth of the pickings The cost of making *gur* is, as given in paragraph 20 of the Palwal Assessment Report, Rs 7-12-0 per acre, and the same share of the cost of hoeing may be allowed as in Palwal, viz, Rs 3 per acre With these exceptions the ordinary Meo zamindar never employs hired labour, and no allowance need be made on this account

33 In tahsil Rewari I made a deduction from the landlord's share of *chahi* produce on account of annual repairs to the woodwork and the occasional cleaning of wells In this tahsil this expenditure falls on the tenant, and no deduction is therefore legitimate

34 The landlord's share of the produce on the various classes of soil was stated in paragraph 24, and is shewn in percentages in the following table —

| | | | |
|---------------|-----|-----|-------------------|
| Irrigated ... | ... | ... | { Chahi 33½ |
| | | | { Nahri 50 |
| Unirrigated | . | . | 50 |

As in the case of *chahi* and unirrigated crops, no further deductions have to be made, the Government share is half that of the landlord's. On *nahri* land the landlord pays half the cost of the seed and half the canal dues, and in the case of cotton he shares the cost of the picking, and in the case of cane the cost of cultivation, which is per acre as follows. —

| | |
|--------------------------------------------------------------------------|------|
| Cost of seed | Rs a |
| Share of cost of hoeing | 9 0 |
| Hire of press (including oil) | 3 0 |
| Pay and food of <i>jhoka</i> and <i>taria</i> who prepare the <i>gur</i> | 6 4 |
| | 7 12 |
| Total | 26 0 |

To avoid unduly complicating the Produce Estimate I have worked out separately the value per acre of the Government share of each nahri crop, and to obtain the total value of the Government share it is only necessary to multiply the area by the value per acre. These rates per acre are obtained by working out the value of a matured acre of each crop (less fodder allowance, *vide* paragraph 31) at the yields assumed in paragraph 29 and the sanctioned prices given in paragraph 30. After deducting the value of the seed sown, the canal dues and the expenditure mentioned in paragraph 32, the Government share is one-fourth of the remainder.

The gross produce and half-net-asset estimates are worked out in detail in Statement XIII.

Before abstracting the results here it is necessary to make allowance in the Bangar Circle for the serious underestimate of kharaba alluded to in paragraph 28. In that paragraph I compared the recorded percentages of failed crops with what I considered they ought to be.

I propose to deduct 4 per cent from the chahi, 12 per cent from the nahri and 10 per cent from the unirrigated crops on account of insufficient kharaba. The resulting Jamas and rates are shown below —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---------------|------------------------|------------------|------------------|-------|--------|-----------|-----------|------------------------------|--------------------|----------------------------------------------|
| Circle | Detail | Chahi irrigation | Nahri irrigation | Abi | Dahri | Barani | Total | Value of 1/4th gross produce | Present assessment | Increase per cent, of column 8 on column 10. |
| BANGAR. | Matured area in acres | 2,522 | 8,437 | | 257 | 56,110 | 67,335 | . | | |
| | Value of gross produce | 40,748 | 1,26,607 | | 3,468 | 4,64,094 | 6,41,112 | | | |
| | Half net assets | 6,614 | 14,594 | | 675 | 89,703 | 111,586 | 1,06,852 | 70,661 | 40 |
| | Rate per acre | 2-10-0 | 1 12 0 | | 2 10-0 | 1-10 0 | 1 10-0 | | | |
| BHUDAR. | Matured area in acres | 2,448 | | 44 | 609 | 32,199 | 35,300 | " | | |
| | Value of gross produce | 56,550 | | 568 | 8,832 | 2,40,763 | 3,06,719 | " | | |
| | Half net assets | 8,058 | | 118 | 1,768 | 45,716 | 55,650 | 51,120 | 44,420 | 25 |
| | Rate per acre | 3-5-0 | | 3-9-0 | 2-14-0 | 1-7-0 | 1-9-0 | | | |
| DANAR MITHA | Matured area in acres | 1,755 | " | . | 1,570 | 10,675 | 23,000 | | | |
| | Value of gross produce | 44,535 | | | 25,788 | 2,15,302 | 2,85,625 | | | |
| | Half net assets | 6,308 | | | 5,476 | 41,795 | 53,579 | 47,604 | 47,276 | 13 |
| | Rate per acre | 3-9 0 | | | 3 8-0 | 2-2-0 | 2 5 0 | | | |
| DANAR KHARI | Matured area in acres | 873 | | 849 | 38 | 17,238 | 18,493 | | | |
| | Value of gross produce | 21,086 | | 5,704 | 478 | 2,23,544 | 2,49,812 | | | |
| | Half net assets | 2,800 | | 1,160 | 97 | 42,658 | 46,775 | 41,635 | 37,411 | 25 |
| | Rate per acre | 3 4 0 | | 3 5-0 | 2 15 0 | 2 8 0 | 2-8 0 | | | |
| CHIKVOT | Matured area in acres | 58 | . | 193 | 128 | 7,334 | 7,713 | | | |
| | Value of gross produce | 970 | | 3,428 | 2,000 | 79,964 | 86,362 | | | |
| | Half net assets | 185 | | 768 | 403 | 14,882 | 16,188 | 14,304 | 14,151 | 14 |
| | Rate per acre | 2 5 | | 4-0-0 | 3-2 0 | 2-0-0 | 2 2 0 | | | |
| TOTAL TANSIL. | Matured area in acres | 7,656 | 8,437 | 586 | 2,597 | 1,32,565 | 1,51,841 | | | |
| | Value of gross produce | 1,69,690 | 1,26,807 | 9,700 | 40,566 | 12,22,667 | 15,69,630 | | | |
| | Half net assets | 23,970 | 14,594 | 2,041 | 8,419 | 2,34,754 | 2,83,778 | 2,61,605 | 2,22,919 | 27 |
| | Rate per acre | 3 2 0 | 1 12 0 | 3 8 0 | 3-4-0 | 1-12 0 | 1-14 0 | | | |

It will be observed that in all circles the half-net-assets are considerably higher than the value of one-sixth of the gross produce. This is due to the high rate of baram of unirrigated crops. As I pointed out in paragraph 24, there can, I think, be little doubt that a rate of one half is too high for all except the best baram land, and the proper rate lies between one-half and one-third, and should probably be two-fifths, as taken by Mr O'Dwyer in Alwar.

In the Dahar Mitha Circle the estimate seems unduly low, and this is due probably to the fact that the cropping is unrepresentative. There ought to be a much larger area under dahri crops (*vide* paragraph 22), and the chahi cropping is somewhat below the average (*vide* comparative statement in paragraph 8). In this circle also the yields may perhaps have been somewhat underestimated.

In the Dahar Khari Circle the chahi cropping is, as noted in paragraph 8, considerably above average, but the dahri cropping is much below average, and the total result is probably a correct estimate.

CHAPTER VI—HALF-NET-ASSETS BASED ON CASH RENTS.

35 The results of the examination of cash rents have been described in paragraph 26. It only remains to decide what share of the corrected rents may be taken as equivalent to half the net assets. In the Palwal Assessment Report (paragraph 34) I pointed out that in using cash rents we can either take the average realisations of a term of years (if available), or the rent demand of a single year, and that if we took the former we should find that we had to make an allowance for the expenses of management, while if we took the latter, we should have to allow for non-realisation, for land which goes out of cultivation or is not let regularly every year, and for fluctuations in the rent rate. In this tahsil unfortunately there are very few villages owned by non-cultivating owners who take cash rents, and we are therefore unable to take average realisations as the basis of our cash rent net assets, and have to fall back on the cash rent demand of the year of measurement. The rates given by these rents after correction are detailed in paragraph 26, and we have to consider what deduction must be made from them on account of non-realisation &c. In the Rewari tahsil I made a deduction of 5 per cent on this account and in the Palwal tahsil of 12 per cent, but the Meo is a very different tenant from the Ahir or Jat, and I do not think there can be any doubt that in this tahsil the percentage of unrealised rents is much larger than in Rewari or Palwal. It varies of course with the pitch of the rents and with the security of the cultivation. I think a deduction of 15 per cent ought to be made in the Bangar, Dahar Mitha and Chiknot Circles, of 10 per cent in the Bhuder Circle, where the soil requires very little rain to mature a moderate crop, and of 30 per cent in the Dahar Khari Circle. In the last circle rents are so high that I am convinced that they cannot be realised at all fully over a series of years. These percentages are below what is indicated by the very meagre evidence as to realisations which is obtainable. In the Dahar Mitha circle the whole of the village of Doha is cash rented: the percentage of realisations during the ten years 1896-97 to 1905-06 is only 71, but the tenants are the dispossessed proprietors, who have always been at feud with the owner by purchase, and further, in 1900-01 the rents, which were already high, were raised to a pitch which justifies their being characterized as rack rents. During the four years previous to 1900-01 realisations averaged 80 per cent of the demand, and as these years were below average, I have assumed that over a series of years 85 per cent of the demand would be realised. In the Dahar Khari Circle a Meo owns nearly the whole of two villages and half of a third. The average demand of his rents in these three villages during the last ten years amounts to Rs 1,494 while realisations only average Rs 989, or 66 per cent. of the demand. The owner however is careless, the villages are not well managed, and the percentage of non-realisation must be above the average, though, with the very high rents taken in this circle, it is no doubt large, and my estimate of 30 per cent is probably moderate.

Beyond the deduction of these percentages the rates as they stand require no alteration except in the Dahar Mitha and Chiknot Circles. In the former I propose to take the Magda rate (Rs 4-6-0) as the average baram rate for the reasons given in the paragraph 26.

In the Chiknot Circle there are so few rents that a reliable cash rent estimate cannot be framed. The rents are only on *chahi* and *barani*, and in the former case the rent is too low and in the latter case too high, as it is on the best land. To obtain an estimate the best we can do is to apply the customary rate (Rs. 2 per *bigha* *pakka*, *vide* paragraph 26) to the cultivated area. This rate is too low for *chahi*, *abi* and *dahri*, but this is counterbalanced by the fact that it is too high for *bhur*, and it is on the whole a fair all round rate for the circle.

After making the above alterations, and deducting the percentages for non-realisation the half-net-asset rates and *jamas* are as follows —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-------------|------------|--------------|--------|--------------|---------------|---------------|---------------|------------------|--------------------|--------------------|
| Circle | Detail | Chahi | Nabri. | Abi. | Dahri | Barani | Bhur | Total cultivated | Present assessment | Increase per cent. |
| | | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | |
| BANGAR. | Rate ... | 1 12 6 | 1 12 6 | . | * .. | 1 9 6 | 0 12 6 | 1 9 5 | | |
| | Area | 5,690 | 10,875 | | 754 | 45,941 | 4,147 | 67,207 | | |
| | Amount Rs | 10,135 | 19,015 | | . | 74,420 | 8,240 | 1,06,810 | 79,661 | 34 |
| BHUDER | Rate . | 2 9 0 | | 2 12 0 | 2 8 0 | 1 10 0 | 0 14 0 | 1 5 4 | | |
| | Area .. | 4,807 | .. | 82 | 943 | 10,592 | 22,400 | 38,824 | | |
| | Amount | Rs 12,318 | | Rs 226 | Rs 2,857 | Rs 17,212 | Rs 19,600 | Rs 51,713 | 44,420 | 16 |
| DAHAR MITHA | Rate . . | Rs a p 8 4 6 | .. | . | Rs a p 2 15 0 | Rs a p 1 13 9 | Rs a p 1 0 6 | Rs a p 2 2 7 | | |
| | Area | 4,491 | .. | | 4,364 | 12,531 | 4,113 | 25,499 | | |
| | Amount | Rs 14,736 | | | Rs 12,819 | Rs 23,300 | Rs 4,242 | Rs 55,007 | Rs 47,276 | 17 |
| DAHAR KHARI | Rate ... | Rs a p 2 5 0 | | Rs a p 2 3 0 | Rs a p 2 5 0 | Rs a p 2 4 0 | Rs a p 1 15 0 | Rs a p 2 0 0 | | |
| | Area . . . | 1,762 | | 614 | 875 | 15,617 | 3,029 | 20,897 | | |
| | Amount | Rs 4,405 | | Rs 1,343 | Rs 2,024 | Rs 35,138 | Rs 3,931 | Rs 46,841 | Rs 37,411 | 25 |
| CHIKNOT | Rate .. | | | | | | | Rs a p 1 6 0 | | |
| | Area | 52 | | 361 | 152 | 10,182 | 336 | 11,033 | | |
| | Amount .. | | | | | | | Rs 15,170 | Rs 14,151 | 7 |

* Included in *barani*

The *abi* and *dahri* areas in all circles are not the areas in Statement II but the areas as finally fixed (*vide* paragraph 7), and the *barani* area has been modified accordingly.

It remains to compare the cash rent estimates with those based on kind rents and detailed in the preceding paragraph. In the Bangar and Bhuder Circles the half net-assets by cash rents are lower than those based on kind rents, and in the Dahar Mitha Circle they probably would be lower if the produce estimate were reliable which, as I have already pointed out, I do not think it is. The reason seems to be that in these three circles the rent rate of one-half is too high, and the one-sixth-gross-produce estimate which in the two first named circles agrees very closely with the cash rent estimate is more reliable. In the Dahar Khari Circle the two-half net assets estimates agree almost exactly, and this is what we should expect as a *batai* rate of one-half is not too high for the fertile semi-dahar soil of this circle. In these four circles the cash rent estimate may, I think, be accepted with confidence as the true half-net-assets, as where the kind rent estimate differs from it, it is due to the causes which I have just enumerated.

In the Chiknot Circle we must, on the other hand, make kind rents our principal guide, and here again the one-sixth-gross-produce-estimate is much more reliable than the half-net-assets based on batai as a batai rate of one-half is obviously much too high for the extremely precarious soil of this circle. Though the cash rent estimates is little better than a guess, it may be noted that it agrees almost exactly with the one-sixth-gross-produce-estimate if we raise the latter by 6 per cent, which is the extent to which the produce of the selected years is below the average of the last 21 years (*vide* Statement X).

Expressed in round numbers the following sums are what I take to be the true half-net-assets in each circle.—

| | | | | | Rs |
|-------------|-----|----|-----|-----|----------|
| Bangar | . | . | | | 1,07,000 |
| Bhuder | | | | | 52,000 |
| Dabar Mitha | .. | . | | .. | 55,000 |
| „ Kharī | . | .. | ... | ... | 47,000 |
| Chiknot | ... | . | .. | . | 15,200 |

PART II.—FISCAL AND MISCELLANEOUS.

CHAPTER I.—FISCAL HISTORY

36. Of the 244 villages of this tahsil 194 belonging to the parganas of Firozpur and Punahana were conferred in jagir by Lord Lake on Nawab Ahmad Bakhsh Khan, but were forfeited in 1835 owing to the instigation by his son, Shamas-ud-din Khan, of the murder of Mr Fraser at Delhi.

First Regular Settlement

The net average collections of the last 20 years of the jagirdar's management amounted to Rs 2,25,700 out of an average demand of Rs 2,45,700. The parganas were summarily settled between 1835 and 1837 by Mr C. Gubbins for Rs. 2,25,591, and in the following year the first Regular Settlement was concluded by that officer's brother, Mr M. Gubbins. Reductions on the Summary Settlement jamas were allowed at once, while the enhancements took effect from the expiry of the terms fixed at the Summary Settlement. The assessments were as follows. —

| 1 | 2 |
|------------------------------------------------------|----------------------------------|
| Jama of 1246 fash (first year of Revised Settlement) | Final jama attained in 1256 fash |
| Rs
2,22,213 | Rs
2,33,264 |

In 1841 Mr Gubbins reported that his assessment was too severe, and in accordance with his representations it was reduced to Rs 1,84,908. Twelve villages were subsequently added to the tahsil from pargana Nuh and 12 from pargana Hathin. Their assessment, Rs 18,176, raised the total assessment of the tahsil as then constituted to Rs 2,03,084.

The first Regular Settlement worked well, and in 1875 Mr Channing wrote, "although the settlement presses rather heavily on individual villages, and although, as I hope to show, in one circle, Chak Mandikhera, some reduction of assessment is in justice required, yet the present assessment has on the whole worked well. Transfers by sale have been very few, mortgages are not, except in a few instances, oppressive, and the revenue has been regularly and easily collected."

37. The Second Regular Settlement was begun in 1872. Mr Channing joined as Assistant Settlement Officer in 1873 and remained in charge of the settlement operations until the end of 1877, by which time all the actual assessment work was completed. Mr. Channing found that population had increased 52 per cent, cultivation 34 per cent, and that there had been a considerable rise of prices. On the other hand well irrigation and natural flooding had both decreased.

Second Regular Settlement

The instructions on which the assessment was to be based are contained in Section 121 of the Final Settlement Report. The demand was not to exceed the estimated value of half the net produce ordinarily receivable by the landlord either in money or kind. These instructions introduced a new and reduced standard, hitherto the Government share of the net assets had in theory amounted to two-thirds though in practice the pitch of the summary and first regular assessments was determined by the average collections of the jagirdar. In any case it was probably above the half-net-assets.

The processes by which Mr Channing's rates were framed are detailed by him in Section 141 of the Settlement Report. He was unable to derive any substantial assistance from cash rents, as the villages in which competitive cash rents existed were extremely few, and his assessment was based almost entirely on his estimate of the produce, one sixth of which he took as his standard.

The estimates of yields were, as I have stated in paragraph 29, rather high, and as the barani yields were applied to the whole cultivated area, the value of the produce was probably somewhat over estimated. The total value of the gross produce of the tahsil as then constituted was Rs 15,16,164 and the proposed assessment Rs 2,40,739, or 95 per cent of the one-sixth gross produce

As in Palwal Mr Wood thought that the proposed rates were too lenient, but they were eventually passed without alteration. Mr. Channing however found himself unable to assess fully up to his rates, and the jama as finally announced was Rs 10,000 less than the jama proposed

The following table shows the results of the re-assessment in each of Mr. Channing's circles (excluding the fifteen villages transferred from Nuh at the end of the settlement) —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------------------------|----------|--------|---------|------------|----------|--------------|
| | Punahana | Bhuder | Landoha | Maudikhera | Chiknot. | Total Tahsil |
| | Rs | Rs. | Rs | Rs | | Rs |
| Value of one sixth gross produce | 89,533 | 53,692 | 50,420 | 27,217 | 31,832 | 2,52,694 |
| Existing Jama | 56,120 | 44,439 | 47,852 | 31,500 | 23,006 | 2,02,917 |
| Jama proposed | 78,582 | 50,573 | 53,651 | 26,935 | 30,998 | 2,40,739 |
| Jama sanctioned | 76,123 | 48,990 | 51,526 | 27,884 | 25,958 | 2,30,481 |
| Increase per cent | + 36 | + 10 | + 8 | —11 | + 13 | + 12 |

The assessment of the 15 villages transferred from Nuh at the end of settlement amounted to Rs 8,030, thus bringing the total assessment of the tahsil up to Rs 2,38,511

The general aspects of the breakdown which followed the famine of 1878 have been discussed in the Assessment Reports of Rowan and Palwal, and need not be referred to here. Owing to the character of the Meo the breakdown was worse in the Mewat than in other parts of the district. The assessment of Tahsil Ferozpur is examined circle by circle in paragraph 61 (Section 6—11) of Mr Wilson's Revision Report, and the following temporary and permanent reductions were granted —

| 1 | 2 | 3c | 4 | 5 | 6 |
|-----------|--------|--------|------------|-------------|---------|
| | Bangar | Bhuder | Dahar 1tha | Dahar Khari | Chiknot |
| Permanent | 4% | 8% | 7% | 3% | 5% |
| Temporary | 10% | 9% | 6% | 2% | 8% |

The percentages of temporary reductions shown here are less than those given by Mr Wilson in Appendix VI of the Revision Report. Mr Wilson's figures include reductions due on land in the possession of mortgagees, to whom as a matter of fact no reduction was allowed. This explains the small percentage of temporary reductions in the Dahar Khari Circle, which in 1883-84 was almost as heavily involved in mortgage as it is now.

The total permanent reduction for the whole tahsil amounted to Rs 12,040, or $5\frac{1}{2}$ per cent of the jama, and temporary reductions amounting to Rs 18,079 were granted for seven years on the understanding that at the end of that period the Deputy Commissioner should decide how much of the original assessments should be re-imposed. Between 1883-84 and 1889-90 the seasons were generally favourable and the condition of the tahsil greatly improved. At the end of the seven years Rs 2,653 of the amount for which temporary reductions were granted were remitted permanently and Rs 15,426 re-imposed. The total amount therefore by which Mr Channing's assessment was finally reduced was $6\frac{1}{2}$ per cent.

The following statement shows the fixed jama of the tahsil at the various periods alluded to and in 1905-06 —

| 1 | 2 | 3 | 4 |
|------------------------------|----------|--------------------------|-------------------|
| Period | Jama | Incidence on cultivation | REMARKS |
| | Rs | Rs a p | |
| Summary Settlement . . . | 2,25,591 | | 194 villages only |
| 1st Regular Settlement . . . | 2,03,174 | 1 11 5 | 229 do |
| 2nd ditto ditto . . . | 2,38,511 | 1 7 2 | 244 do |
| 1883-84 . . . | 2,00,717 | 1 5 2 | |
| 1889-90 . . . | 2,22,970 | 1 6 8 | |
| 1905-06 . . . | 2,22,919 | 1 5 10 | |

Details of the fluctuating assessment imposed on cultivation in the Kotla Basin will be found in Statement XVI.

38. The revised assessment worked well and the demand was paid with ease between 1890 and 1895, when the long series of bad seasons began, which continued up to 1905-06 1895-96 and 1898-99 were poor years, while 1899-1900 was a famine year.

A recovery was made in 1900-01, but another series of poor rabis was followed by a serious failure of the kharif and rabi harvests of 1905-06 in the Dahar and Chiknot Circles. In the Bangai and Bhuder Circles the harvests of that year were nearly average. These two circles have suffered very much less from the recent bad seasons than the Dahar Circles. In both the kharif is the chief harvest and in the Bangai Circle the canal and in the Bhuder Circle the lightness of the soil have enabled a large area to mature in spite of the scantiness of the rainfall. The Dahar and Chiknot Circles on the other hand—especially Chiknot—have suffered severely from the bad seasons, and in the fodder famine which lasted from August 1905 to April 1906 it is estimated that 75 per cent of the cattle of the tahsil perished. Owing to the scarcity of grazing the Mewat always suffers more severely in a fodder famine than the rest of the district.

The kharif harvest of 1906 was good, and the rabi harvest of 1907 exceptionally good, and these two harvests have much improved the condition of the tahsil, but a succession of good or average seasons is still required to restore the villages to their condition in 1895.

The following statement shows the suspensions, remissions and collections of revenue during the last 21 years in percentages on the average khalsa demand —

| YEAR | SUSPENSIONS | | | | | | REVISIONS | | | | | | COLLECTIONS | | | | | | |
|-----------|-------------|--------|-------------|-------------|----------|--------|-----------|--------|-------------|-------------|----------|-------|-------------|--------|-------------|-------------|-------------|--------|------|
| | Bangar | Bhuder | Dahar Mithe | Dahar Khari | Chiknot. | Total. | Bangar | Bhuder | Dahar Mithe | Dahar Khari | Chiknot. | Total | Bangar | Bhuder | Dahar Mithe | Dahar Khari | Chiknot | Total. | |
| | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | |
| 1885-86 | | | 17 | | | 4 | | | | | | | 1013 | 987 | 988 | 1088 | Fixed | 1022 | 1019 |
| 1886-87 | | | | | .. | | | | . | | | | 980 | 931 | 970 | 893 | Fluctuating | 930 | 949 |
| 1887-88 | | 8 | | | | 1 | | | | | | | 914 | 927 | 951 | 972 | Fixed | 939 | 949 |
| 1888-89 | | | 2 | | | 03 | 4 | | | | .. | 1 | 915 | 939 | 954 | 973 | Fixed | 940 | 939 |
| 1889-90 | 19 | 17 | 61 | 52 | 29 | 34 | | | | | | | 995 | 999 | 951 | 953 | Fluctuating | 490 | 979 |
| 1890-91 | | . | | | | | | | | | | | 1024 | 1024 | 1054 | 1044 | Fixed | 1033 | 1034 |
| 1891-92 | | 2 | | | | 05 | | | | | | | 1019 | 1016 | 1013 | 1005 | Fluctuating | 1015 | 1014 |
| 1892-93 | | | | | | | | | | | | | 1019 | 1021 | 1012 | 1005 | Fixed | 1015 | 1015 |
| 1893-94 | | | | | | | | | | | | | 1021 | 1019 | 1012 | 1005 | Fixed | 1015 | 1015 |
| 1894-95 | | | | | | | | | | | | | 1030 | 1019 | 1013 | 1005 | Fixed | 780 | 1000 |
| 1895-96 | 03 | | | 14 | 235 | 15 | | | | | | | 1021 | 1020 | 1005 | 991 | Fluctuating | 351 | 851 |
| 1896-97 | | | | | 194 | 16 | | | | | | | 1021 | 1020 | 1005 | 991 | Fixed | 880 | 1003 |
| 1897-98 | | | | | | | | | | | | | 1021 | 1020 | 1018 | 1019 | Fluctuating | 887 | 887 |
| 1898-99 | | 7 | 6 | 4 | 199 | 20 | | | | | | | 1009 | 1011 | 1000 | 1000 | Fixed | 823 | 995 |
| 1899-1900 | 509 | 294 | 319 | 575 | 972 | 467 | | | | | | | 511 | 727 | 695 | 425 | Fluctuating | 522 | 573 |
| 1900-01 | | | | | | | | | | | | | 1235 | 1103 | 1178 | 1288 | Fixed | 1243 | 1345 |
| 1901-02 | | | | | | | | | | | | | 882 | 700 | 628 | 850 | Fluctuating | 1410 | 1410 |
| 1902-03 | | | | | | | | | | | | | 1061 | 1011 | 892 | 1067 | Fixed | 328 | 996 |
| 1903-04 | | | | | | | | | | | | | 931 | 898 | 858 | 983 | Fluctuating | 734 | 996 |
| 1904-05 | | | | | | | | | | | | | 1135 | 1225 | 1203 | 1230 | Fixed | 1170 | 1176 |
| 1905-06 | | | | | | | | | | | | | 450 | 486 | 545 | 553 | Fixed | 831 | 910 |
| | | | | | | | | | | | | | 1135 | 1225 | 1203 | 1230 | Fixed | 716 | 716 |
| | | | | | | | | | | | | | 450 | 486 | 545 | 553 | Fluctuating | 1215 | 1187 |
| | | | | | | | | | | | | | 450 | 486 | 545 | 553 | Fixed | 145 | 875 |
| | | | | | | | | | | | | | 450 | 486 | 545 | 553 | Fluctuating | 207 | 297 |

The remission in 1901-02 were on account of the Coronation, and in 1905-06 were of sums outstanding for more than three years. The amount under suspension at the end of Rabi 1907 was as follows —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------------------------------------|--------|---------|-------------|-------------|----------|----------|
| | Bangar | Bhader. | Dahar Mitha | Dahar Khari | Chiknot. | Total |
| | Rs | Rs | Rs | Rs | Rs | Rs |
| 1 On account of previous years | 2,570 | 5,866 | 9,309 | 2,143 | 2,631 | 22,519 |
| 2 On account of 1905-06 | 44,278 | 23,238 | 21,698 | 16,881 | 12,125 | 1,18,220 |
| 3 Total ... | 46,848 | 29,104 | 31,007 | 19,024 | 14,756 | 1,40,739 |
| 4 Proposed for recovery with rabi instalment of 1907 | 10,346 | 7,002 | 8,222 | 5,832 | 2,075 | 33,477 |
| 5 Proposed for remission (Rabi 1907) | 845 | 5,304 | 6,974 | 109 | . | 13,232 |
| 6 Total proposed recoveries and remissions | 11,191 | 12,306 | 15,196 | 5,941 | 2,075 | 46,709 |
| 7. Balance outstanding | 35,637 | 16,798 | 15,811 | 13,083 | 12,681 | 94,030 |

All unrecovered balances existing when the new demand is announced should be remitted

CHAPTER II.—MISCELLANEOUS.

39. The total population at the last census was 1,32,287. Separate figures for the children of each tahsil are not available, but adopting the average of the whole district the population may be classified as follows :—

| 1 | 2 | 3 | 4 |
|-------------|--------|---------|----------------------------------------|
| Detail. | Males | Females | Children under ten (excluding infants) |
| Urban | 8,312 | 7,632 | 3,816 |
| Rural | 42,158 | 38,160 | 19,080 |
| Total .. . | 50,470 | 45,792 | 22,896 |

Infants have been estimated to number 10 per cent. of the total population. The simple diet of the zamindars of this district is described in the corresponding chapter of the Rewari report. I do not think that over a series of years there would be any difference between the diet scale of this and the Rewari and Palwal Tahsils.

The Meo is not nearly such a hard worker and probably eats less food, but, as cattle are so scarce, milk probably forms a smaller item in his diet, and he has to consume more grain food.

I therefore adopt the same diet scale as in Rewari and reproduce it for reference below —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | MALES | | FEMALES | | CHILDREN | |
| | Chataks per diem | Maunds per annum | Chataks per diem | Maunds per annum | Chataks per diem | Maunds per annum |
| Urban | 10 | 5½ | 8 | 4½ | 6 | 3½ |
| Rural .. . | 12 | 7 | 9 | 5 | 6 | 3½ |

The total annual consumption is therefore 6,48,180 maunds.

The yield of food grains is given in the detailed produce estimates, and the tahsil totals in maunds, after making the fodder allowances detailed in paragraph 31, are as follows —

| | | | |
|-------|----------|--------|----------|
| Jowar | 65,284 | Chaula | 1,580 |
| Bajra | 1,70,255 | Wheat | 12,464 |
| Maize | 2,520 | Barley | 1,67,150 |
| Mung | 6,729 | Gojra | 17,197 |
| Mush | 1,195 | Gram | 1,31,298 |
| Moth | 7,826 | Gochm | 16,764 |

I have estimated the yield of the fluctuating cropping at the dahar yields of the circle.

I show below in the case of each crop the amount of seed sown per acre, the percentage of the sown area which fails and the resulting deduction to be made on account of seed. In estimating the percentage of baraba the proportion of irrigation must be kept in mind. The total amount of seed sown is obtained by increasing the total matured area under each crop (Statements VIII and IX) by the percentage in column 3 and multiplying the result by column 2.

For conversion into flour the following deductions should be made —

| | | | |
|--------|---------------|----------|-----------------|
| Jowar | } 1½ per cent | Wheat | } five per cent |
| Bajra | | Pulses | |
| Maize | | Mixtures | |
| Barley | | | 10 per cent |

The total amount of converted food grains is therefore as follows —

| 1 | 2 | 3 | 4 | 5 | 6 |
|--------|----------------------------|-----------------------------------|-------------------------------------|-----------------------|---------------------------------------------------|
| Crop | Seed sown per acre in aers | Percentage of failed to sown area | Total amount of seed sown in maunds | Net produce in maunds | Net produce in maunds after conversion into flour |
| Jowar | 8 | 25 | 3,194 | 61,890 | 61,116 |
| Bajra | 3 | 25 | 6,007 | 1,75,218 | 1,71,057 |
| Maize | 6 | 20 | 95 | 2,125 | 2,395 |
| Mung | 3 | 25 | 281 | 6,145 | 6,121 |
| Mush | 3 | 25 | 51 | 1,144 | 1,057 |
| Moth | 5 | 25 | 207 | 3,619 | 3,318 |
| Chaula | 2 | 25 | 65 | 1,512 | 1,137 |
| Wheat | 50 | 20 | 7,870 | 34,684 | 32,950 |
| Barley | 50 | 20 | 25,084 | 1,12,366 | 1,25,129 |
| Gojra | 50 | 20 | 3,025 | 11,172 | 15,463 |
| Gram | 25 | 21 | 14,519 | 1,16,749 | 1,10,912 |
| Gochm | 40 | 22 | 7,318 | 38,956 | 47,008 |
| Total | | | 65,912 | 5,99,210 | 5,71,115 |

There appears therefore to be a deficiency of food grains amounting to about three-quarters of a lakh of converted maunds, but the total includes 83,421 maunds of wheat, gojra and gochm which are more valuable than bajra and barley, the staple food grains, and the exchange of the former grains for the latter would represent an addition of about 20,000 maunds to the total. Further the produce in Statement XIII is 3 per cent below the average of the last 21 years and as I pointed out in paragraph 34 the produce of the Dahar Mitha Circle is unduly low. In this circle the Government share is probably about Rs 5,000 less than it ought to be, which equals roughly a gross deficit of Rs 30,000, which sum may be taken to represent about 20,000 maunds of barley and bajra flour. On the above facts we are justified in adding about 60,000 converted maunds to our total of Rs 5,71,115. This leaves a small deficit, but we have still to take account of the fact that owing to the bad seasons not only is the produce 3 per cent below average for the whole tahsil, but in the Dabar Kham and Chiknot Circles it is much more and the character of the seasons has entirely altered the character of the cropping. In normal years the area under wheat, gojra and gochm in these circles would be much larger.

I think it may be assumed that over a series of years the food grains are a little more than sufficient to feed the people, though in view of the severe pressure of population on the soil in parts of the tahsil I do not think we can expect to find much excess of production over consumption.

After deducting one-half of the gross value of the sugarcane and sarson and one-tenth of the gross value of the cotton, the value of the non-food and miscellaneous crops (including those in the fluctuating area) is about Rs 3,10,000 to which must be added something on account of excess production of food grains. As the present khalsa demand with cesses and canal dues amounts to Rs 2,83,987, this estimate leaves very little margin for clothing and the other necessaries of life, and cannot be accepted as correct. I have already pointed out the very serious decrease of the area under cotton in recent years due to the scantiness and lateness of the rains, and a considerable addition must be made to the estimate on this account. Possibly also the fodder deductions are excessive and the net produce of food grains is too small. However, I think the above facts illustrate clearly the extreme poverty of the tahsil, and explain why the people are unable to tide over even one bad year. In a good year the value of the produce is very much greater than my estimate, and the people of the tahsil, over-populated as it is, are able to feed themselves, pay their revenue and live comfortably, but in a bad year the value of the produce is insufficient for these purposes, and in such years it is fatal to attempt to collect from the Meo the revenue which the thrifty Ahir or Jat would be able to pay out of the surplus of good years. My figures if correct seem to indicate the necessity for a substantial reduction of assessment, but in the Mewat a large reduction would be useless, and what is indicated is exceptionally careful revenue management, revenue being liberally suspended in bad years and collected again in good years.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------------------------------------------------------------------|-----------|-----------|-------------|-------------|---------|-------------|
| | Bangar | Bhuder | Dahar Mutha | Dahar Khari | Chiknot | Total |
| Percentage of failed to matured crops—
Irrigated | 3 | 8 | 11 | 13 | 41 | 6 |
| Unirrigated | 24 | 31 | 36 | 33 | 37 | 30 |
| Percentage of area cultivated by owners | 65 | 54 | 52 | 55 | 61 | 59 |
| „ of tenants-at-will paying
cash rents (not being at revenue rates) | 13 | 19 | 31 | 21 | 6 | 18 |
| Increase per cent of prices | .. | .. | | | .. | 39 |
| Half-net-assets of last settlement (one-
sixth gross produce for 229 villages) | Rs 89,533 | Rs 53,692 | Rs 50,420 | Rs 59,049 | | Rs 2,52,694 |
| Half net-assets of present settlement
(244 villages) by kind rents | 1,11,586 | 55,650 | 53,579 | 46,775 | 16,188 | 2,83,778 |
| Half-net-assets by cash rents | 1,06,810 | 51,713 | 55,097 | Rs 62,963 | | 2,75,631 |
| Value of one-sixth gross produce of pre
sent settlement. | 1,06,852 | 51,120 | 47,604 | 41,635 | 14,394 | 2,61,605 |
| Present fixed assessment | 79,661 | 44,420 | 47,276 | Rs 56,029 | | 2,22,919 |
| | | | | 37,411 | 14,151 | |

As already stated in paragraph 7 the apparent increase in wells in use, laos and irrigation must be taken for what it is worth. There probably has been an increase to make up for the serious decrease of flooding.

In giving the value of the one-sixth gross produce as estimated by Mr. Channing I have grouped the Mandikhera and Chiknot Circles together, as, owing to the transfer of six villages from the present Chiknot Circle to Dahar Khari, the present and former circles do not correspond. The difference in the number of the villages affects the Bangar Circle only, as all except one of the 15 villages transferred to the tahsil are in that circle.

The bearing of the above statistics on the assessment will be discussed circle by circle.

41. Before detailing my assessment proposals for each circle I wish to make a few general remarks about the method to be adopted in assessing the proprietary body of this tahsil. Enough has been said to indicate the improvidence of the Meo and the severe pressure of population on the soil. The combination of these two factors renders the problem of assessment an extremely difficult one. The former makes a full assessment combined with a careful and elastic revenue management theoretically desirable, while the latter makes the adoption of this course very difficult. The problem is how to impose an assessment light enough to leave a fair margin for comfort and the necessaries of life and at the same time not so light as to demoralize the people. In assessing the various circles I have tried to keep this principle in mind.

42. This circle contains 103 villages, and comprises the former Punahana Circle and 14 out of the 15 villages transferred from Nuh at the end of last settlement.

Bangar Circle.

The striking feature of the statistics in the preceding paragraph is the area under canal irrigation which now protects 18 per cent of the cultivated area. In consequence this is the most secure circle of all, and we find that 102 per cent of the cultivated area produces matured crops, though some deduction must be made from this very high percentage on account of the underestimation of failed crops alluded to in paragraph 28. With regard to the large increase of wells and laos in use and of the area irrigated from wells I must refer to the remarks in paragraph 8.

There has, however, been a large increase in the total number of masonry wells and a corresponding increase of irrigation may be presumed. Ploughs and bullocks have increased slightly and population largely. The area sold is very small, and the area mortgaged is not large for Meos. The settlement jama, though a large increase, amounted to a lower percentage of the half-net-assets in this circle than in any other, and with the reduction given at the revision may be said to have been very light. Prices have risen largely and the opening of the Agra-Delhi-Chord Railway, which passes within a few miles of this circle, has very much improved communications. The above facts all indicate a considerable increase of assessment. On the other hand the owners have always been lightly assessed, and are in consequence somewhat demoralized, and their cultivation compares very unfavourably with that of their more heavily assessed fellow tribesmen in the other circles. Any increase of assessment which is taken must be a moderate one, and must be justified by an increase of resources. This practically confines the increase to the nahri villages, as most of the barani villages, though lightly assessed, are not in a position to pay much more than they are paying at present.

I compare below Messrs Channing's and Wilson's rates and jamas with the rates and jamas based on kind and cash rents —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|--------|--------|--------|--------------------------|--------|--------|---------------------------|----------|
| | Chahi | Nahri | Dabri | Ohiknot
and
Narmot | Magda | Bhur | Total
cultiva-
tion | Jama |
| | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs n p | Rs a p | Rs |
| Mr Channing | 2 8 0 | | 2 2 0 | 1 4 0 | 1 1 0 | 0 14 0 | 1 3 10 | 83,971 |
| " Wilson | 1 11 0 | | 1 8 0 | 1 4 0 | 1 0 0 | 0 8 0 | 1 3 1 | 80,658 |
| Kind rents | | | | | | | 1 10 7 | 1,11,586 |
| Cash rents | 1 12 6 | 1 12 6 | | 1 9 6 | 1 9 6 | 0 12 6 | 1 9 5 | 1,06,810 |

Mr Channing's rates are for the S9 Punahana villages only, as his rates in the villages transferred from Nuh were various. Mr Wilson left Mr Channing's loam rates untouched and obtained his reduction by reducing the rates on chahi, dabri and bhur, all of which soils were considerably overassessed.

The present assessment is Rs 79,661 and the increases given by the kind and cash rent jamas, respectively, are 40 and 34 per cent.

The first point for decision is the method of assessing canal lands as to which I would refer to paragraph 41 of the Palwal Assessment Report. The reasons for a fixed assessment of canal lands are if anything stronger in this tahsil than in Palwal. There are not likely to be any material reductions of the existing supply, and, even if reductions are made, the difference between the value of barani and nahri land after allowing for canal dues is so small that a reduction of the water supply would not make the proposed assessment press heavily on the villages affected. It is true, as I stated in paragraph 8, that small extensions of irrigation are to be undertaken in the near future, but these can if necessary be provided for by rules similar to those proposed for the Palwal Tahsil, though, as the net profits of canal irrigated land are not much larger than those of barani, the interests of Government would not suffer much if these profits remained untaxed during the currency of the new settlement. The area irrigated by "lift" is very small, and for the same reasons as in Palwal (*vide* paragraph 41 of the Palwal Assessment Report) I do not propose to make any difference between the rates on "flow" and "lift". In paragraph 3 of this report I described the Lohinga Valley Canal and the Shakrawa and Shahchoka Bunds. The statement at the end of that paragraph shows that up to 1896-97 there was a good deal of flooding and a fairly large income from abiana, but that since that year not a single acre has been irrigated. I have given reasons for holding that there is not likely to be any overflow from the Nuh Tahsil in the future, and it is therefore useless to classify any part of the area formerly irrigated as abi, but, as it is impossible to foretell what the result of a return to normal seasons will be, a fluctuating rate per matured pakka bigha should be maintained and levied in addition to the barani rate whenever there is any flooding in this area.

The fixed rates which I propose are—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------|----------|---------------|--------|--------|-----------|------------------------------------------------------------------------------------------------------------|
| Soil | Rate | Area in acres | Demand | Total | Incidence | REMARKS |
| | Rs a p | | Rs | Rs | Rs a p | |
| Chahi | 1 9 0 | 5,690 | 8,891 | | | Nabri includes chahi-nabri, and the superior barani class includes the area classed in Statement II as abi |
| Nabri | 1 9 0 | 10,675 | 16,680 | | | |
| Dabri | 1 9 0 | 754 | 1,178 | | | |
| Chiknot | } 1 4 0 | 45,941 | 57,426 | 86,767 | 1 4 8 | The dabri area is that given in paragraph 7 |
| Narmot | | | | | | |
| Magda | } 0 10 0 | 4,147 | 2,592 | | | |
| Bhur | | | | | | |

This is an increase of 9 per cent on the present assessment and amounts to 81 per cent of the half-net-assets (which may be taken to be Rs 1,07,000), and to between $\frac{1}{4}$ th and $\frac{1}{8}$ th of the gross produce. This is a light assessment, but it is not too light for the Meos of this circle. My assessments of finished villages yield an increase of 8 per cent which is nearly the same as that proposed for the circle.

The chahi, nabri and dabri rates may seem low, but the chahi is extremely inferior, while nearly all the extra profits due to canal irrigation are absorbed by the canal dues. The dabri is flooded from a hill stream and is precarious and inferior.

The loam is a good strong soil, but is very dry and requires much more rain than it generally receives. The low rate which I have imposed on it is justified by the large percentage of the sown area which fails.

The bhur is also inferior.

My barani rate is the same as Mr. Wilson's and the proportions of the various rates are exactly those of the normal cash rents except in the case of dabri of which there are no cash rents, and of chahi and nabri, where I have raised them slightly to allow for the greater security of the cropping. Paragraph 26 shows that the chahi and nabri rent rates were considerably reduced at attestation, and I am not sure that this was not a mistake.

The present fluctuating rate on abi flooded from the Lohunga Canal is Re 1 per matured pakka bigha. This rate is in my opinion too high and I propose the same rate as I shall propose in the other circles of this tahsil—10 annas per matured bigha, or Re 1 per acre. I do not think the difference between abi and barani cropping can be assessed higher than this. In this circle there is no difference between abi and dabri, and as the abstract statement in paragraph 34 shows the difference between the value of the dabri and barani cropping is exactly Re 1 per acre.

43 This circle contains the same 58 villages as at last settlement. The

Bhuder Circle

apparent increase of irrigation is probably real as the total number of wells has increased very largely, and the wells of this circle have always been in fairly regular use. Further some increase of resources is only what we should expect from the general prosperity indicated by the considerable increase of ploughs and bullocks, and the comparatively small percentage of the cultivated area under mortgage. The soil is very light, and the produce is not valuable, but as Statement X shows it is wonderfully secure, and the circle as a whole has suffered very little during the past ten years of drought. On the other hand, though population has increased by only 9 per cent, the net area per owner free for profit is only 6 acres, which is very little for such light soil, and the present jama is a full one, though it stands after reduction as it was before last settlement. The enhancement taken by Mr Channing was hardly justified and the assessment broke down terribly in the famine which followed the imposition of the new demand. The circle is now in a prosperous condition because, owing to the regular use of the wells and the lightness of the soil, it has not suffered like the rest of the tahsil during the recent bad years, but I do not think there are any grounds for an increase of assessment.

I compare below Mr Channing's and Mr Wilson's rates with the half-net-assets rates based on kind and cash rents;—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------------|--------|--------|--------|--------------------------|--------|--------|---------------------------|--------|
| | Chahi, | Abi | Dahri | Chiknot
and
Narmot | Magda | Bhur | Total
culti-
vation | Jama |
| | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | |
| Mr. Channing | 3 0 0 | | 2 4 0 | 1 8 0 | 1 2 0 | 0 14 0 | 1 4 4 | 49,401 |
| Mr Wilson | 2 12 0 | | 2 4 0 | 1 10 0 | 1 4 0 | 0 11 0 | 1 2 7 | 45,172 |
| Kind rents | | | | | | | 1 7 0 | 55,650 |
| Cash " | 2 9 0 | 2 12 0 | 2 8 0 | 1 10 0 | 1 10 0 | 0 14 0 | 1 5 4 | 51,713 |

Mr Wilson's reduction was obtained by largely reducing the bhur rate, which was much too high, as the small decrease in the chahi rate was counterbalanced by a slight increase in the rates on narmot and magda. But even Mr Wilson's assessment was a little high, as existing cash rents show, and Mr Maconochie in fixing the assessment for the remaining term of settlement was unable to take Mr Wilson's permanent jama, and it was reduced to Rs 44,420 at which it now stands.

The rates which I propose are—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------|--------|------------------|--------|--------|-----------|---------|
| Soil. | Rate | Area in
acres | Demand | Total | Incidence | REMARKS |
| | Rs a p | | Rs | Rs | Rs a p | |
| Chahi | 2 4 0 | 4,807 | 10,816 | | | |
| Abi | 2 2 0 | 82 | 174 | | | |
| Dahri | 2 2 0 | 943 | 2,004 | | | |
| Chiknot
Narmot | 1 7 0 | 10,592 | 15,226 | | | |
| Magda
Bhur | 0 11 6 | 22,400 | 16,100 | 44,320 | 1 2 4 | |

This practically maintains the present assessment, but it amounts to 85 per cent of the half-net-assets which may be taken to be Rs 52,000 and to almost exactly one-seventh of the gross produce. It agrees with the result of my village inspections, the total of the tentative assessments of finished villages corresponding with the total of the existing jamas. The percentage of the half-net-assets which it is proposed to take is fairly large for Meos, but it is justified by the security of the cropping, and the comparative prosperity of the circle.

Chahi—The chahi rate is the average rate for the three kinds of chahi. The rate for kachcha wells will be much lower, but this decrease is counterbalanced by a correspondingly large increase in the rate on the valuable dhenkli chahi.

My proposed rate is 8 annas less than Mr Wilson's, but as the half-net-assets rate is only Rs 2-9-0 Mr Wilson's rate seems to have been too high. An effective comparison between the former and present chahi rates in this circle is possible, because the chahi areas of last settlement and now correspond almost exactly as regards the proportion of chahi soil actually irrigated. Statement III shows that taking the area irrigated as 1 the chahi soil of last settlement is equal to 1.8 and of the present settlement is equal to 1.7. As my rate amounts to 88 per cent of the half-net-assets rate (Rs 2-9-0) I do not think it can be said to be too low.

The decrease in the chahi rate explains why, although there has been an increase of irrigation amounting to 400 or 600 acres according as we accept the figures of Statement II or Statement III (I prefer the former in this circle, as the average irrigation of the last eight years is owing to the large number of bad rains probably above average), yet no corresponding increase of assessment is possible.

Abi—The small *abi* area in this circle is all irrigated from the Kotla Bund. The area finally classified as *abi* is, as in the case of *dahri*, the area which I consider will be flooded in seasons of normal rainfall. As explained in my No 609, dated 27th May 1907, to the address of the Settlement Commissioner, it is desirable to get rid as far as possible of the system of *abiana*, and I propose that this *abi* should pay a fixed rate like *dahri*. In years of exceptionally good rainfall a larger area than that now classified as *abi* may possibly be flooded from the Bund. This is of course a common feature of all flooded land. A great deal of land which is not classed as *dahri* is occasionally flooded, but, as the flooding is precarious and uncertain, the land is classed as *barani*. In my opinion it would be simplest and best to forego the extra assessment on land which is outside the area now classed as *abi* in the event of its being irrigated by floodwater from the bund, but, if it is considered necessary to assess it, then a fluctuating rate of annas 10 per matured *pakka bigha*=Re. 1 per acre may be imposed, subject to conditions which will be discussed later. The old rate is a little low, but the new rate (*vide* paragraph 3) is much too high for the inferior irrigation of this bund. As I pointed out in paragraph 3 the water is mixed with sand, and the people attach very little value to the irrigation.

In this circle the *abi* area is in two villages only:—

| | Acres |
|-----------------|-------|
| Fakharpur Khori | 13 |
| Karheri ... | 69 |
| | <hr/> |
| Total | 82 |

The *abi* in Fakharpur Khori is deep sand in the bed of the Balauj stream, and no higher fixed or fluctuating assessment can possibly be imposed in this village. The *abi* in Karheri is of a much better quality, and can pay the fixed rate proposed by me and also the fluctuating rate on land flooded but not classed as *abi*, if Government decide to impose the additional fluctuating rate.

The Ghata Shamsabad and Rawa Bunds are, as shown in paragraph 3, supposed to pay *abiana* at the rates shown in the statement in that paragraph. As the former has been breached for years, and as there has up to the present time never been any irrigation from either bund, I do not understand how any rates can have been fixed for future irrigation from them, and in any case I certainly cannot express any opinion on the suitability of the rates now proposed. This cannot be done until the quality of the land after it has silted up sufficiently for irrigation purposes becomes known, and until it is seen what crops can be grown from the irrigation.

Dahri—The *dahri* is fairly certain of regular flooding in seasons of good rainfall, but is inferior to the *dahri* of the Dahar Mitha Circle because very little of it is flooded by the Landoha. Half the area is flooded by the Turbem and half by drainage water from the hills.

Barani—The loam and the *bhur* both vary very much in quality as the villages of which the circle is composed adjoin the other four circles, and their lands resemble the lands of the various circles which they adjoin, but they are on the whole superior to the corresponding soils of the Bangar Circles, and the higher rates are justified. The proportions of the rates proposed correspond fairly closely with the proportions of normal cash rent rates, but I have taken a slightly lower *bhur* rate to allow for some of the inferior land not being regularly cultivated, and I have lowered the *abi* rate to allow for the fact that the *abi* in Fakharpur Khori cannot pay anything higher than the *bhur* rate of the circle.

Dahar Mitha Circle

44 This circle contains the same 31 villages as the former Landoha Circle

There has been an apparently large increase of irrigation but the increase is mostly on *kachcha* wells and *abankhis* and is presumably due to the recent dry seasons and the cessation of flooding. The increase in the total number of *pakka* wells is small. The flooded area has decreased very largely. As already explained,

there was no flooding between 1898 and 1904, and the area classed as dahri is that which was flooded in both the years 1904 and 1906. This area amounts to 4,364 acres, and is little more than half the area recorded as dahri at settlement. For reasons already explained it is impossible to say whether the present estimate of the flooded area is a fair one. Possibly no area at all ought to be recorded as flooded, while on the other hand the succession of bad seasons may have led to its being under-estimated. In the circumstances, however, the present area must be accepted for assessment purposes. The large decrease is only what might be expected. Since the first regular settlement there has been a continual decrease of the area flooded by the Landoha, and this fact was noted and explained by Mr Channing (*vide* paragraph 23 of his Assessment Report). Since last settlement cultivation in Alwar has probably increased still further, and in any case the alterations made to the Atria Bund are quite sufficient to explain the further large decrease of flooding.

Such dahri as there is is of excellent quality, as it is nearly all from the Landoha. In addition to the large decrease of flooding, which is somewhat compensated for by the increase of irrigation, which varies inversely with the amount of flooding, ploughs and bullocks have decreased, and the area under mortgage is very large.

Although these signs of deterioration are probably due to the disastrous series of bad rains since 1896, still the present assessment is rather high in view of the decrease of flooding, and some reduction is indicated.

I compare below Mr Channing's and Mr Wilson's rates with the half-net-assets rates based on kind and cash rents —

| 1 | 2 | | | 3 | | | 4 | | | 5 | | | 6 | | | 7 | | | 8 |
|-------------|-------|---|---|-------|----|---|--------------------|----|---|-------|----|---|-------|----|---|-------------------|----|---|--------|
| | Ohahi | | | Dahri | | | Chiknot and Narmot | | | Magda | | | Bhur. | | | Total cultivation | | | Jama |
| | Rs | a | p | Rs | a | p | Rs | a | p | Rs | a | p | Rs | r | p | Rs | a | p | Rs |
| Mr Channing | 3 | 8 | 0 | 2 | 8 | 0 | 1 | 12 | 0 | 1 | 6 | 0 | 1 | 2 | 0 | 2 | 0 | 0 | 51,586 |
| " Wilson | 3 | 0 | 0 | 2 | 4 | 0 | 1 | 10 | 0 | 1 | 6 | 0 | 0 | 14 | 0 | 1 | 13 | 5 | 47,694 |
| Kind rents | | | | | | | | | | | | | | | | 2 | 1 | 7 | 53,579 |
| Cash " | 3 | 4 | 6 | 2 | 15 | 0 | 1 | 13 | 9 | 1 | 13 | 9 | 1 | 0 | 6 | 2 | 2 | 7 | 55,097 |

Mr Channing decidedly over-assessed this circle as is indicated by the fact that his jama was 2 per cent in excess of the value of his one-sixth gross produce. The chahi and bur rates were especially high, and Mr Wilson substantially reduced the rates on these soils besides giving a small reduction on dahri and narmot. The chahi rate remained high, but presumably was framed to allow for the possible expansion of irrigation in dry years. The jama fixed by Mr. Maconochie in 1889-90 was Rs 47,276 which is exactly the present jama. Owing to the precariousness of the dahri it is extremely difficult to assess this circle, but the rates which I propose are—

| 1 | 2 | | | 3 | 4 | 5 | 6 | 7 |
|---------|------|----|---|---------------|--------|--------|-----------|---------|
| Soil | Rate | | | Area in acres | Demand | Total | Incidence | REMARKS |
| | Rs | a | p | | Rs | Rs | Rs a p | |
| Ohahi | 2 | 12 | 0 | 4,491 | 12,350 | | | |
| Dahri | 2 | 4 | 0 | 4,364 | 9,819 | | | |
| Chiknot | 1 | 9 | 0 | 12,531 | 19,580 | | | |
| Narmot | | | | | | | | |
| Magda | 0 | 14 | 0 | 4,113 | 3,599 | 45,348 | 1 | 12 |
| Bhur | | | | | | | | |

This is a reduction of a little over 4 per cent and amounts to about 82½ per cent of the net assets (which may be taken to be Rs 55,000), and to nearly one-sixth of the gross produce, but as I pointed out in paragraph 34 the estimate of the gross produce seems unduly low, and I do not think the proposed assessment can amount to as much as one-seventh of the gross produce.

I have inspected all the villages in this small circle except three, and my tentative village assessments yield a decrease of 4 per cent which agrees with the assessment now proposed for the circle

The proposed decrease is not large in view of the decrease of flooding but, as already pointed out, in this circle this can be and has been somewhat compensated for by an increase of irrigation.

Chahi —The chahi rate is lower than at last settlement, but Mr Channing's rate seems much too high for Meo cultivation, and is not justified by the normal cash rent rate of this settlement. The proposed rate is only four annas lower than Mr. Wilson's rate, and this is accounted for by the fact that the present area contains a much larger proportion of kachcha chahi.

Dahri —The dahri rate is by no means high for the good dahri of this circle, which could pay a higher rate if flooding were certain, but it has been kept low to allow for the effect of the Atria Bund

Barani —The low lying loam and clay in the centre of the valley are of excellent quality, and can easily pay Re 1-12-0 per acre, but the circle average is reduced by the inferior, high lying loam alluded to in paragraph 26, which cannot pay a higher rate than the loam of the Bangar Circle which it resembles

Bhur.—The bhur is a good, moist, fertile soil, much superior to the bhur of the Bangar and Bhuder Circles. Except of dahri the proportions of the proposed rates agree with the proportions of normal cash rent rates, and except in the case of chahi my rates are almost exactly the same as Mr Wilson's.

45 This circle contains the 28 villages of the Mandikhera Circle and 6 villages of the former Chiknot Circle.

Dahar Khari Circle

There has been an enormous decrease of flooding due to causes detailed in paragraphs 2 and 6, but the number of pakka wells has nearly doubled, and, though the irrigated area in Statement III is not much larger than the area irrigated at last settlement, Statement II shows that a large expansion is possible. Moreover from its situation in the centre of the valley the soil even when not flooded is kept moist by percolation and is almost equal to dahri. Still ploughs, bullocks and population have decreased and more than half the cultivated area is under mortgage with the result that the net area free for profit per owner is less than 4 acres. In this circle the mortgage and deterioration are due not so much to any decrease of resources or to over-assessment as to the severe pressure of population on the soil, and the position does not seem to be much worse than in 1883-84 when Mr Wilson revised the assessment. Of course the circle is suffering from the effects of the past ten years of drought, but it has suffered less than the Chiknot and Dahar Mitha Circles.

The circle cannot be said to be over-assessed, and it is useless to try and remedy the evil of over-population by any large reduction of assessment

I compare below Mr Channing's and Mr Wilson's rates with the half-net-assets rates based on kind and cash rents. The former are for the 28 Mandikhera villages only, and, if they do not bring out the jama in column 9, it is because the rates in the six Chiknot villages do not agree with the Mandikhera rates. The jama is that of the circle as now constituted.—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------------|-----------|-----------|-----------|-------------------|-----------|-----------|----------------------|--------|
| | Chahi. | Abi. | Dahri | Chiknot
Narmot | Magda. | Bhur | Total
cultivation | Jama |
| | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. |
| Mr. Channing | 3 8 0 | | 2 0 0 | 1 12 0 | 1 6 0 | 1 2 0 | 1 13 4 | 38,420 |
| „ Wilson | 3 0 0 | | 2 4 0 | 1 13 0 | 1 7 0 | 1 1 0 | 1 12 7 | 37,397 |
| Kind rents | .. | | | | | | 2 3 10 | 46,770 |
| Cash .. | 2 8 0 | 2 3 0 | 2 5 0 | 2 4 0 | 2 4 0 | 1 15 0 | 2 3 10 | 46,841 |

Mr Channing's assessment was a reduction of 7 per cent, which as pointed out by Mr Wilson in Section 61 (8) of the Revision Report was hardly acquired. Consequently a very small further reduction was granted at the revision by Mr Wilson, who lowered the rates on chahi and bhur, but raised them on the other soils. Mr. Maconochie assessed at Rs 37,411, which is the present jama,

The rates which I propose are—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------------------|---------|---------------|--------|--------|-----------|---------|
| Soil. | Rate | Area in acres | Demand | Total. | Incidence | REMARKS |
| | Rs. a p | | Rs. | Rs | Rs a p | |
| Chahi | 2 0 0 | 1,762 | 3,524 | | | |
| Abi | 1 14 0 | 614 | 1,151 | | | |
| Dahri | 2 0 0 | 875 | 1,750 | | | |
| Chiknot, Narmot,
Magda | 1 12 0 | 15,617 | 27,380 | | | |
| Bhur | 1 1 0 | 2,029 | 2,156 | 35,911 | 1 11 6 | |

This is a reduction of almost exactly 4 per cent, and amounts to only 77 per cent of the half-net-assets, which I take to be Rs. 47,000, but it is almost exactly equal to one-seventh of the gross produce, and in view of the severe pressure of the population on the soil and the serious amount of mortgage is a sufficiently high assessment

Ohahi—My proposed rate is very much lower than either Mr Channing's or Mr Wilson's rate, but in this circle the area recorded as chahi at this settlement is very large as compared with the area of average irrigation. The proportion which the chahi soil of last settlement bears to irrigation is 17, while that of the present settlement is represented by 25. Cash rents show that the people consider chahi very little more valuable than good barani, and as I pointed out in paragraph 26 the small difference in the rent of the two soils is due to the high rents taken on dhenkis and wells growing garden crops.

Abi—Irrigation is all from the Kotla Bund and the same remarks apply with regard to the method of assessment as in the Bhuder Circle. The area to which I wish to apply the fixed rate proposed above is as follows—

| Villages | Acres |
|----------|-------|
| Nagina | 451 |
| Rajaka | 42 |
| Bhadas | 121 |
| Total | 614 |

The rate ought to be the same as in the Bhuder Circle, and in Rajaka and Bhadas will be the same, but I have had to reduce the circle rate because out of the 451 acres irrigated in Nagina 256 acres (*vide* paragraph 3) have been seriously damaged by sand deposits, and it will not be possible to take a much higher rate on this land than the bhur rate of the circle. Any orders passed as to the imposition of a fluctuating rate outside the fixed area will apply to this circle also.

Dahri—From its situation in the northern half of the valley this circle is now almost beyond the reach of the Landoha, and the dahri lands which depend on the Landoha (about one-fourth of the whole) will be flooded only in exceptional years. The rest of the dahri is flooded by hill streams, and is not very good of its kind. A lower rate than in the Dahar Mitha Circle is therefore justified both by actual conditions and by cash rents which are very little higher on dahri than on good barani.

Barani—My rate on this soil is almost exactly the same as the average of Mr Wilson's narmot and magda rates. It is a very high rate but is suitable to the fertile, semi-dahar loam and clay of this circle, which in the hands of Ahirs or Jats would pay an even higher rate.

Bhur—My rate is the same as Mr Wilson's. It is a very high rate for bhur, but is much below the rate indicated by cash rents which in this circle almost take the form of an all-round rate. The proportions of my proposed rates excepting on bhur are very nearly those of the normal cash rent rates.

46 This circle consists of 17 out of the 23 villages of Mr. Channing's Chiknot Circle, and one village (Jalalpur-Nuh) transferred from the Nuh Tahsil at

Chiknot Circle

the end of last settlement. The circle is very badly off and has deteriorated seriously since last settlement. The decrease of cultivation is not serious, as it is all in the area under fluctuating assessment, but bullocks, ploughs and population have decreased very largely, the net area free for profit per owner is, considering the almost total absence of irrigation, excessively small, and nearly half the cultivated area is under mortgage. This deterioration is due partly to over assessment, partly to the unsuitability of a fixed assessment to the conditions of the circle, but chiefly of course to the disastrous effect of the last ten years of drought. In paragraph 4 I described the character of the soil and irrigation, and I referred to Statement X as evidence of the vicissitudes through which this circle has passed during the cycle of bad seasons. Owing to the saltiness of the subsoil water there is very little irrigation, and the hard, black clay soil, which is capable of producing excellent crops of jowar and wheat in good years, yields little or nothing when the rainfall is scanty. The average percentage of matured to cultivated area is only 73, and in the last two quinquennial periods the percentage fell to 63 and 52. It is obvious that a fluctuating assessment is what the conditions of this circle require, but I found on enquiry that the people are very much opposed to the system, and, though this is not a sufficient reason for rejecting it, yet it must be admitted that a fluctuating assessment is if possible to be avoided in Meo villages.

In the Kotla basin cultivation has fallen off for no other reason than that the fluctuating assessment imposed at last settlement has removed from the lazy Meo the incentive to cultivate a proper area. It is to be feared that, if the system is extended to the whole of the circle, cultivation will fall off seriously and the people will be no better off than before, as the area under cultivation will fall below what is necessary for their support. In short, a fluctuating assessment will remove a fiscal difficulty, but will not make the circle any more prosperous than it is at present, and will aggravate the characteristic vices of the Meo—laziness and improvidence. For these reasons I do not think a fluctuating assessment suitable, and recommend a light fixed assessment, which, if combined with very careful and judicious revenue management, will, I think, succeed. It may be noted that the villages in the Kotla basin now under fluctuating assessment are no better off than those under fixed assessment. The following villages have their lands wholly or partly in the Kotla basin and are wholly or partially under fluctuating assessment —

Multhan, Jalalpur-Nuh, Firozpur-Nuh.

The arrangement made at last settlement is described in paragraphs 193, 220 and 223 of the Final Settlement Report. A rate of Rs 2 per acre was imposed on the area cultivated. At the revision (*vide* Section 62 of Mr. Wilson's report) certain important changes were proposed and sanctioned for seven years. As the result of the final arrangement made by Mr. Maconochie in 1889, Mr. Channing's rate of Rs 2 per cultivated acre was reimposed irrespective of the class of crop grown (*vide* printed Proceedings, Revenue and Agriculture, Nos 41-49 A, dated January 1891, No. 42, paragraph 10, No 41, paragraph 4, No 48, paragraph 3). Mr. Maconochie left the district soon after his proposals were submitted, and both his proposal and the orders of Government seem to have been misunderstood or overlooked as the rate has always been levied on the *matured* area, and the first of Mr. Wilson's rules has also been allowed to stand. Statement XVI shows the fluctuating revenue realised at various periods. The decrease during the last ten years is very striking and is the result of the decrease of flooding already noticed. At present the Kotla basin is suffering not from an excess of but from a lack of moisture. This is due partly to the network of bunds constructed in the Nuh Tahsil but chiefly to the abnormal character of the seasons. There is no reason to anticipate that in seasons of normal rainfall the jhil will not fill as before. In either case the continuance of the present system of fluctuating assessment is desirable. A succession of normal years is very unusual in this district, and the cultivation in the jhil is not less

affected by drought than by excess of flooding, as, unless thoroughly moistened by flooding, the hard soil overgrown with rank grass cannot be cultivated. I therefore propose the continuance of the present system of fluctuating assessment, which is popular, and which, though it does not stimulate cultivation, is suitable to the peculiar circumstances of the small area within which it is at present imposed.

I proceed to compare Messrs. Channing's and Wilson's rates with the half-net-assets rates based on kind and cash rents.

The same remarks as to the rates and jama apply as in the Dahar Khari Circle.—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|--------|--------|--------|-------------------|--------|--------|---------------------------|--------|
| | Chahi | Abi | Dahri | Chiknot
Narmot | Magda | Bhur | Total
cultiva-
tion | Jama |
| | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs |
| Mr Channing | 2 12 0 | | 2 0 0 | 1 6 0 | 1 2 0 | 0 14 0 | 1 6 0 | 15,604 |
| „ Wilson | 1 12 0 | . | 1 10 0 | 1 6 0 | 1 0 0 | 0 8 0 | 1 4 8 | 14,652 |
| Kind rents | | | | | | .. | 1 7 5 | 16,188 |
| Cash „ | | | | | . | | 1 6 0 | 15,170 |

Mr Channing's assessment was an increase of 15 per cent, and taken as a whole was not considered too high by Mr Wilson (*vide* Section 61 (9) of the Revision Report). The chahi, dahri and bbur rates were however obviously too high, and the permanent reduction given was obtained by largely reducing these rates. The important rate however, that on chiknot-narmot, was left unaltered. Mr. Maconochie assessed at Rs. 14,151, which is the present fixed assessment.

The above assessments may not have been too high at the time they were imposed, but I think the present jama is decidedly too high for the present conditions. It is improbable that the Landoha floods will ever reach this part of the valley in future, and the whole tract is suffering severely from a lack of moisture. The fixed rates which I propose are,—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------|--------|------------------|---------|--------|------------|---------|
| Soil | Rate | Area in
acres | Demand. | Total | Incidence, | REMARKS |
| | Rs a p | Rs | Rs | Rs | Rs a p | |
| Chahi | 1 8 0 | 52 | 78 | | | |
| Abi | 1 12 0 | 361 | 631 | | | |
| Dahri | 1 8 0 | 152 | 228 | | | |
| Baram | 1 2 0 | 10,132 | 11,398 | | | |
| Bhur | 0 8 0 | 336 | 168 | 12,503 | 1 2 1 | |

This is a reduction of 12 per cent and amounts to 82 per cent. of the half-net-assets, which may be taken to be Rs 15,200, and to almost exactly one-seventh of the gross-produce estimate as it stands, though as the estimate is about 6 per cent below normal, the share taken is really less than one-seventh. At the time of my inspection the number of finished villages was less in this circle than in any other, but, as far as they go, my village assessments yield a decrease of 12 per cent, and so agree exactly with the assessment proposed for the circle,

Chahi and dahri—My proposed rates are nearly the same as in the Bangar Circle, the chahi and dahri of the two circles being very similar. The dahri is

in only two villages and is flooded by drainage water from the hills Both *chahi* and *dahri* are very inferior

Abi.—The *abi* is all irrigated from the Kotla Bund and the area on which I propose a fixed assessment of Re. 1-12-0 is distributed as follows —

| | Acres |
|--------------|-------|
| Mandhe | 8 |
| Hasanpur-Nuh | 23 |
| Sultanpur | 161 |
| Umra | 169 |
| Total | 361 |

The *abi* of this circle is farthest away from the source of the streams which feed the Kotla Bund, and I have therefore pitched the rate a little lower than in the Bhuder and Dahai Khari Circles to allow for the greater uncertainty of irrigation, but the water when it does come is more beneficial than in any other circle, as the land lies beyond the reach of sand deposits and the soil, owing to its great strength, produces, when flooded, more valuable crops than the sandier *abi* of the other circles

I mentioned in my description of the Kotla Bund in paragraph 3 that a sluice has been built at Hasanpur-Nuh to let excess water on to the lands inside the bund which are suffering from lack of moisture, and that in connection with this scheme a small bund has been built at Mau No water has passed inside the bund since 1896-97, and it seems unlikely that enough water will ever again come down the bund to permit of the sluice being utilized, but, if it does, the fluctuating rate of 10 annas per *pakka* *bigha* proposed in paragraph 43 should be imposed. Orders passed as to the imposition of this fluctuating rate on land on the up stream side of the bund, which not being classed as *abi* is flooded by water from the bund, will apply to this circle also

Barani —The pitch of the assessment is determined by the rate on this soil, as the area under the other soils is insignificant My rate is much lower than the rates imposed by Messrs Channing and Wilson, but I think it is quite high enough for the extremely precarious cultivation of this circle, which ought, if circumstances had permitted, to have been put under a fluctuating assessment. If a fixed assessment is to be successful, it must be a light one.

Bhui —The area of this soil is very small My rate agrees with the rate imposed by Mr Wilson

Fluctuating area —As at the time of my inspections measurements were not complete in any of the villages under fluctuating assessment, I have not inspected them for assessment, but subject to further enquiry the existing rate and rules appear suitable, and I provisionally recommend that their continuance be sanctioned I shall have inspected the villages probably before this report reaches the Settlement Commissioner and certainly before he has disposed of it, and, if any further report appears necessary, I will submit it separately. If no such report is received, the above proposals may be taken to be final There can I think be no question of a return to the rate on cultivation proposed by Mr Maconochie and sanctioned by Government The proposal was in my opinion an unfortunate one, and should not have been sanctioned A rate of Rs 2 per matured acre is the highest rate that can fairly be imposed, and is only fair when worked with rule (1) of Mr Wilson's rules

47 The total fixed assessment of the tahsil which I have proposed amounts to Rs 2,24,849 against the present assessment of Rs 2,22,919, or an increase of a little less than 1 per cent It was remarked in paragraph 13 of the forecast report that "the thrifless Meos of Firozpur and Nuh have not much improved their resources," and this is certainly true Were it not for the increase of resources in the Bangar Circle due to the introduction of canal

irrigation, the decrease would, owing to the decrease of ^{of} natural flooding, have been still larger. As it is, it is not possible to do much more than maintain the present assessment by redistributing it over the various circles. As less abiana will be levied in future, it may be said that there has been no increase at all. I append for purposes of comparison the rates in tahsil Ramgarh of the Alwar State, and tahsils Pahari and Kama of the Bhartpur State. The rates of tahsil Ramgarh should be compared with those of the Dahar Mitha Circle which it adjoins, those of tahsil Kama with the Bangar Circle, and of tahsil Pahari with the Bhuder and Bangar Circles. The State share of the net assets in both Alwar and Bhartpur is two-thirds and the rates are stated in the assessment reports in terms of the local bigha which in Alwar is the pakka bigha (five-eighths of an acre), while in Bhartpur it is two-fifths of an acre. To reduce the rates of these States therefore to our standard and measurement it is necessary to increase the Alwar rates by one-fifth and the Bhartpur rates by seven-eighths.

The resulting rates are as follows :—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------------|--------|--------|--------|---------|--------|--------|---------------------|--------------------|
| Circle | Chahi | Abi | Dahri | Chiknot | Narmot | Magda | Bhur | total cultivation |
| | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p |
| Ramgarh (Alwar) | 4 0 10 | . | 3 3 7 | 2 6 5 | 1 15 2 | 1 5 7 | { 1 0 10
0 9 7 } | { 2 7 7
2 1 9 } |
| Bhart-
pur { | Kama | 3 8 3 | 2 5 8 | 1 12 0 | | | 1 2 9 | 2 1 9 |
| | Pahari | 3 11 1 | 2 9 6 | 1 14 0 | | | 0 15 0 | 2 4 10 |

The rates in Alwar and Bhartpur are very much higher than those in this tahsil, and represent an altogether different standard of assessment.

Before ending this paragraph it may be useful to show the result of my fixed abi assessments as compared with the fluctuating system hitherto in vogue. The Kotla Bund is the only bund on which there is any land classed as abi, and these remarks apply to this bund only. The statement in paragraph 3 shows that the average realisations from abiana during the last 16 years amount to Rs 1,328. This is much more than what I calculate to be the difference between the abi and barani rates of the present abi area, which amounts to Rs 472 only, but the former total is swelled by the receipts of the years before 1896, that is, before the recent series of dry years set in and before the alterations to the Atria Bund. I have already stated that in my opinion owing to these alterations the Landoha floods are never likely to reach the Kotla Bund in future, and it would be fairer therefore to adopt for comparison the years after 1896. Since 1896-97 realisations from abiana only average Rs 223, which is much less than my assessment of the advantage due to the bund. Although the years since 1896 are much below average, still I do not think that realisations from abiana are likely to average more than Rs 472, and Government is not therefore losing anything by the fixed assessment, while the gain to the people and to the subordinate officials which will result from the abandonment of the vexatious and difficult system of abiana is very great. I would therefore repeat what I urged in paragraph 43, that it is unnecessary to impose a fluctuating rate on land not classed as abi which happens to be flooded in exceptionally good years.

CHAPTER II — MISCELLANEOUS

43 In tracts where wells are protective it is almost impossible that the

Protective leases

existing rules for protective leases should conform with the principle that the period of protection should be such as to ensure the well-owner a return of his capital with interest at a fair rate. This is clearly brought out by the following statement, which shows for pakka wells the number of years during which

the wet assessment on Chahi land in each circle must be remitted to allow of the recovery of the capital alone without allowing anything for interest. —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|-------------------------------------|-------------------------------------------|----------------------------------------|------------------------------------------------|----------------------------------|---------------------|--------------------------------------------------------|
| Circle | Net-assets chahi soil rate per acre | Net-assets all round barani rate per acre | Net profits per acre due to irrigation | Area in acres irrigated by a 2 laos pakka well | Annual net profit on pakka well. | Cost of pakka well. | Number of years required for recovery of capital only. |
| | Rs a p | Rs a p | Rs a p | | Rs a p | Rs | |
| Bangar | 3 9 0 | 3 0 0 | 1 5 0 | 6 | 7 14 0 | 750 | 95 |
| Bhuder | 5 2 0 | 2 4 0 | 5 2 0 | 6 | 30 12 0 | 600 | 19½ |
| Dahar Mitha | 6 9 0 | 3 0 0 | 6 9 0 | 8 | 52 8 0 | 500 | 10 |
| " Khari | 5 0 0 | 4 6 0 | 1 10 0 | 4 | 6 8 0 | 500 | 46 |
| Chiknot* | | | | | | 450 | |

NOTE — The sum in column 4 is arrived at by multiplying the difference between the sums in columns 2 and 3 by the area in column 5 and dividing the result by the area in column 8.

* No data available

The above statement shows that in only two circles would the existing period of 20 years suffice for the recovery of the capital cost, and that in one circle only would it suffice for the recovery of the capital with a fair rate of interest. The two circles in question are of course the Bhuder and Dahar Mitha, where the wells are profitable and are regularly used. In the other three circles wells are purely protective and a very long period is required for recovery of the capital alone. In the Chiknot Circle the period would not be less than in the Bangar Circle.

I shall defer making any proposals until orders are passed on the proposals in paragraph 49 of the Rewari Report.

49 The rules in Financial Commissioner's Circular Letter No 5890, dated 30th September 1904, as amended by Financial Commissioner's Circular Memo. No. 1, dated 10th April 1907, are suitable and should be extended to this tahsil. In the Dahar Mitha and Bhuder Circles, where chahi is much more valuable than barani a good many villages at last settlement distributed their assessment by soil rates, and probably many more will do so when the new assessments are imposed. In the other three circles the chahi is little, if at all, more valuable than good barani, and the assessments will probably be distributed at an all-round rate as before.

50. In paragraph 42 I pointed out that reductions of canal irrigation in villages at present commanded though possible in a few cases are improbable, but that small extensions of irrigation will almost certainly be made in the near future. In Palwal where the difference between the value of nahri and barani after allowing for canal dues is considerable, I proposed certain rules to meet increases and reductions of irrigation (*vide* Palwal Assessment Report, paragraph 47). In this tahsil where the difference between the value of nahri and barani is much less, I do not think the same necessity for such rules exists, but if rules of the nature proposed are sanctioned for Palwal, it would perhaps be advisable for the sake of uniformity to extend them to all canal-irrigated parts of the district. In that case for the eight annas specified in my proposed rule 1 it would be necessary to substitute some such words as "by the difference between the settlement nahri and loam rate," and the same rules would then be applicable to all the three tahsils in which there is canal irrigation.

51. Reh is serious in one or two villages in the canal-irrigated tract, and although it is hoped that the new drain will improve their condition, any rules sanctioned for the Palwal Tahsil (*vide* Assessment Report, paragraph 48) should be made applicable to this tahsil also.

52 If my proposal to levy a fixed abia assessment is sanctioned, then no rules will be required for the working of the assessment of lands already classed as abi, but as I have proposed a fluctuating rate on irrigation, if any, from the Shakhrawa, Shahchoka and Mau Bunds and on irrigation by means of the Hasanpur sluice, and as Government may wish to impose a fluctuating rate on the other lands not classed as abi, but irrigated from the Kotla Bund, rules for the working of the fluctuating assessment are necessary. A single set of rules for the whole district will probably have to be sanctioned finally, but at present I am only in a position to propose rules for this tahsil. The following appear suitable —

(1) No abiana shall be levied on any of the following classes of land —

- (a) Land classed as abi
- (b) Land classed as chahi or dahri even if flooded by water from a bund, unless such land is flooded at the express request of the owner or cultivator
- (c) Land flooded owing to the breaking of a bund
- (d) Land seriously injured by sand deposits. Objections to the levy of abiana on such land may be submitted to the Tahsildar within ten days of the date on which notice of the intention to levy abiana was given, and will be decided by that official after inspection of the spot by himself or by the Naib Tahsildar. Abiana should ordinarily be remitted when the land though flooded has become incapable of producing crops of a better class or yield than unflooded land. The objector may appeal to the Collector or such officer not lower in rank than an Assistant Collector of the 1st grade as the Collector may authorise against the decision of the Tahsildar within 15 days of the date on which he was made acquainted with it.

(2) Abiana shall be levied on the matured area only

(3) Abiana shall be levied on the same land only once in the year. The crops of each harvest shall be measured up separately and assessed to abiana, but land which has paid for a matured kharif crop shall not be charged again for a rabi crop if grown.

Rule (1) (b) is necessary owing to the uncertainty which has existed in the past. Lands classed as dahri were regularly assessed to abiana until a few years ago, when the point was raised on appeal and decided against the District Board. Mr Halifax and other authorities on the Gurgaon Bunds are of opinion that dahri land advantaged by bund water should pay abiana at half rates and in paragraph 5 of No. 58 dated Lahore 19th March 1906 from the Chief Secretary to Government Punjab to the Senior Secretary to the Financial Commissioner Punjab this view finds support, but it is in my opinion quite untenable. Land classed as dahri is assessed at a rate which assumes that it will be flooded in years of normal rainfall, and it is unlikely to be flooded by bund water in any year in which it would not be flooded by drainage water in the ordinary way. Not only is it unfair as a detail of assessment to levy abiana on dahri land, but as a detail of management it is very difficult to work fairly. Where abi and dahri lands adjoin it is often quite impossible to decide with any certainty whether the water which advantages the dahri is from natural flooding or from the bund. If left to the patwari he invariably assigns it to the bund. On both the above grounds therefore I am of opinion that except in certain specified cases no abiana ought to be levied on dahri land unless it is flooded at the direct request of the owner or cultivator. In this tahsil there is no controlled irrigation by cuts, and so this contingency can never arise, but as cases will arise in other tahsils I have left the rule in the form which will be suitable for the whole district. Similarly the only occasion when chahi should pay abiana is when the chahi lands are flooded by request. This contingency is not likely to arise in this tahsil, but it has arisen and will arise in other tahsils, and the general rule is therefore proper. Whenever chahi and dahri lands are extremely inferior and would really be advantaged by bund water, they will of course be excepted from the operation of this rule. For instance in this tahsil I should have excepted the chahi and dahri lands of the Chiknot Circle and proposed to assess them at half abiana rates, if there had been any chahi or dahri within the range of flooding, but there is not.

Rule (1) (d). I think this provision is necessary, because it is very unfair that land which has so deteriorated that it cannot fairly pay even the barani rate imposed at settlement should have to pay abiana in addition. I have roughly indicated the procedure which seems to be necessary for carrying out the rule, but in the other tahsils there will be other reasons justifying remissions of abiana, and a procedure suitable for objections of all kinds will have to be prescribed, and the procedure now proposed need not be considered final.

Rule (2) is the existing rule and should be continued.

Rule (3) is one of the rules at present in force in the area under fluctuating assessment. In my opinion it is equally necessary in the case of crops grown on land flooded from a bund. The possibility of its adoption was suggested in paragraph 5 of the letter quoted above. The existing rule by which abiana has hitherto been levied both on kharif and rabi crops matured on the same land in the same year is manifestly unfair. The only case in which two crops are matured in the same year in flooded abi land is, when a kharif cereal is followed by gochni, bejhar or gram. The kharif cereal could not possibly be benefited by the flooding and would generally be damaged, and the yield would almost certainly be less than in barani land. The imposition therefore of abiana on the kharif crop in addition to the fixed barani assessment is unfair. The real advantage from the flooding is derived from the valuable rabi crop (generally gochni), which can be sown if there has been good flooding, and this is the only crop which ought to be taken into account for the purposes of abiana. If cotton matures at the kharif, no rabi crop is possible. A matured cotton crop is extremely rare in flooded land and in any case the position remains unaltered, as the net value of cotton and gochni is very nearly the same. The various forms therefore which a year's matured cropping in flooded abi land may take are as follows.—

| <i>Kharif</i> | <i>Rabi</i> |
|------------------|-----------------|
| 1 Cotton | |
| 2 Jowar or bajra | Bejhar or gram. |
| 3 | Wheat, gochni |

In the first two cases, which are unusual, the flooding must of necessity have been very light, or for cotton abnormally heavy, while in the third case which is the prevailing form it will have been average. In all three cases the value of the cropping is about the same, and the case for imposing abiana only once in the year is therefore established. Differential crop rates are of course theoretically desirable but their introduction would involve an amount of trouble which would be out of all proportion to the advantages gained. One rate for all crops, levied only once a year on the same land, gives a result which is sufficiently fair. The proposed rule may not have been quite clearly worded, and I wish to point out that it is not my intention to propose that a whole field, any part of which has borne a matured kharif crop, shall be exempt from payment of abiana at the rabi. The prohibition only extends to that part of the field which has borne a matured kharif crop. Thus in a field of one bigha, if three biswas yield a matured crop at the kharif and are assessed to abiana, the remaining 17 biswas may be separately assessed to abiana at the rabi, if they yield a matured rabi crop.

In the Government letter already alluded to it was suggested that the assessment should be made only once a year *i.e.*, in the rabi, but I think there are objections to this proposal. The cultivator who grows only a kharif crop might find it inconvenient to pay the assessment on it at the rabi, and any objections to the assessment of a kharif crop would have to be dealt with by the Collector or Assistant Collector long after the crop had been harvested, and it would be very difficult to come to a proper decision. On the whole I think it would be better to retain the rule in the form proposed.

The existing rules as to the inspection and assessment of lands liable to pay abiana are a set drawn up by Mr Hamilton in 1901. The rules have worked extremely well hitherto, and I do not anticipate that many modifications will be necessary, but it will be necessary to amplify them in certain points, *e.g.*, by making provision for objections &c. My proposals will be submitted later when I am in a position to submit rules applicable to the whole district. If it is decided to introduce the new proposals for assessing abi and

levying abiana piecemeal by tahsils, then my proposed rules for this tahsil should be provisionally sanctioned, and the system of fluctuating assessment should continue to be worked according to the rules laid down by Mr Hamilton in so far as they are not cancelled by my proposed rules, and as soon as possible I will submit for sanction a final set of rules for the whole district

53. The term of settlement which is suitable is 30 years. If a shorter term is finally sanctioned for the canal villages in Palwal, it will probably be advisable to fix the same term for canal villages in this tahsil also, but no orders on this point are required at present. The present settlement expired with the rabi instalment of 1907. As pointed out in my No 905 dated 6th August 1907 to the address of the Settlement Commissioner the present assessment was by an oversight sanctioned up to Rabi 1908, (*vide* orders of Punjab Government and of the Government of India in the printed Settlement Report) but as the engagements taken from the owners under Act XXXIII of 1871 were for a period of 30 years ending (approximately) with Rabi 1907, the mistake does not effect the date from which the new demand can be imposed. The question has been settled as regards the Rewari Tahsil, and in this tahsil no importance attaches to it, as there appears to be no possibility of orders on this report being received in time to permit of the demand being imposed before Kharif 1908. The new demand should be imposed from that date, provided that orders are received in time.

Cesses.

54. The sanctioned cesses are—

| | Rs | a | p |
|------------|----|---|---|
| Local rate | 8 | 5 | 4 |
| Lambardari | 5 | 0 | 0 |
| Total | 13 | 5 | 4 |

These should be continued. I have submitted separately proposals for the abolition of the office of chief headman, which were called for in Settlement Commissioner's endorsement No 879 of the 9th March 1907.

Points on which orders are required.

55. Orders are required on the following points —

(1) The proposed rates and assessments including the method of assessing (a) nabri (b) abi (c) land not classed as abi, but which may possibly be flooded by water from the Kotla Bund (d) land which may be flooded from the Shakhrawa, Shahchoka and Mau Bunds (e) land in the Kotla basin under fluctuating assessment (paragraphs 42—46)

(2) Adoption of the rules for the remission of the wet assessment when a well falls out of use (paragraph 49)

(3) Question of adopting the rules proposed in paragraph 47 of the Palwal Assessment Report, if they or similar rules have been sanctioned (paragraph 50)

(4) Adoption of the rules proposed in paragraph 48 of the Palwal Assessment Report, if they or similar rules have been sanctioned (paragraph 51)

(5) Adoption of rules for regulating the assessment of abiana on lands not classed as abi, but irrigated by water from District Board Bunds (paragraph 52)

(6) Date of imposition of the new demand (paragraph 53)

(7) Cesses (paragraph 59)

B. T. GIBSON,

Dated 26th September 1907.

Settlement Officer

*Extract from a letter No 579, dated 2nd May 1902, from the Deputy Commissioner,
Gurgaon District, to the Political Agent, Alwar State*

7 The third point is the most important of all. It appears that the Alwar Darbar have erected a huge masonry wall $3\frac{1}{2}$ miles in length, running almost parallel to the hills right up to Atria temple, traversing in its course the old earthen embankment, shown as "Landoha Bunds" on the map referred to in paragraph 4. The zamindars of Firozpur complain most bitterly of this action of the Darbar and aver that the wall in question has entirely intercepted their supply of water. I do not know the full particulars of this work, and before I express my opinion on it I shall be glad to know when it was built and with what object. But I cannot refrain from remarking that a work of such magnitude should not have been allowed to be constructed without the concurrence of the Punjab Government, considering that its effects are far reaching and are not unlikely to upset all the arrangements hitherto made between the officers of that Government and the Raja of Alwar, for controlling the waters of the Landoha stream.

*Extract from a letter No 337, dated the 22nd July 1902, from the State Engineer,
Alwar, to the Political Agent Alwar*

9 With regard to the Atria Bund nothing has been done to which the Punjab Government can raise objection.

10 The bund was constructed in old days and had been working, (whether effectively or not is beside the point) for years before the Punjab Province came into existence.

11 As first made, like the majority of village-made earthen bunds, or dhols, it was irregular in form and weak in structure.

It burst frequently, when the flood causing the breach ran directly down the old channel of the river to Gurgaon and this may have given rise to a wrong impression of the amount of water which the dividing arrangement at Karaoli should give to Gurgaon.

12 To remedy this state of affairs, and secure to the Alwar State their proper share, at my suggestion the earth bank of the Atria Bund was faced with masonry, and this is the masonry now complained of.

The masonry has merely been given to prevent the bund breaching and the Alwar State is perfectly within its right to repair or strengthen any bund in its territory in the way most to its advantage, and no one outside the State has any right to make objection.

13 The result of the masonry face wall has been that the bund has not breached in late years and it is hoped will never breach again.

This and the many successive dry seasons has caused Gurgaon to receive less water than previously had been their good fortune, mainly through the misfortune to the Alwar State by the breaching of their old established bund.

*Extract from a letter No 3074, dated 24th July 1902, from the Political Agent, Alwar
State, to the Deputy Commissioner, Gurgaon District*

As regards the construction of the Atria embankment I would invite your attention to page 200 of the Gurgaon Settlement Report where you will find that the Atria Bund was constructed by the Jats over 100 years ago.

The Alwar Darbar is perfectly within its rights in strengthening or repairing this old bund in any way it considers proper and any action it may have taken in this direction is not therefore open to discussion.

GLOSSARY OF VERNACULAR TERMS USED IN THE REPORT.

| Vernacular | English. |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Abiana . | An assessment levied in addition to the assessment at unirrigated rates on account of the advantage derived from irrigation |
| Ahir . | A Hindu caste |
| Anna . | One-sixteenth part of a rupee |
| Arhar . | A pea (<i>Cajanus indicus</i>) |
| Badni . | A gambling transaction |
| Bajra . | Spiked millet (<i>Pennisetum spicatum</i>). |
| Bangar . | Uplands |
| Bania . | A Hindu caste |
| Barani . | Dependent on rain |
| Batai . | Rent taken by division of crop |
| Bejbar . | A mixed crop of barley and gram |
| Bhainchura . | A form of tenure where possession is the measure of right |
| Bhuder . | Sandy |
| Bigha . | A measure of area 1 pakka bigha = $\frac{1}{4}$ of an acre. |
| Band . | Protective embankment |
| Chamar . | A kamin (Q V) |
| Charsa .. | Leathern well bucket |
| Chari .. | Jowar grown thick for fodder. |
| Chhalak . | One-sixteenth of a ser (Q V) |
| Chaula or lobia . | An autumn pulse (<i>Vigna catjang</i>). |
| Dahar . | Flooded land. |
| Dhenki . | A hand-lever well |
| Dhol . | A low earthen wall |
| Dhani . | Coriander seed |
| Defash . | Yielding two crops in each agricultural year |
| Fash . | Agricultural year |
| Ghi .. | Clarified butter |
| Gochni .. | A mixed crop of wheat and gram |
| Gojra . | A mixed crop of wheat and barley |
| Gnar . | An autumn pulse (<i>Cyamopsis psoraloides</i>). |
| Gur . | Unrefined sugar |
| Jagir . | An assignment of land revenue |
| Jagirdar . | Holder of an assignment of land revenue |
| Jama . | Land revenue demand. |
| Jat ... | A Hindu caste |
| Jhoka .. | A man who tends the fire on which the juice of the sugarcane is boiled |
| Jinswar . | Harvest crop statement |
| Jowar . | Great millet (<i>Sorghum vulgare</i>) |
| Kachoha . | (Of a well) not lined with masonry |
| Kamin .. | A village servant |
| Khalasa . | Revenue credited to Government as contrasted with jagir (Q V) |
| Khanzada . | A Muhammadan caste |
| Kharaba .. | Portion of a crop which has failed to come to maturity |
| Kharch . | Cess realised by landlord in addition to rent |
| Kharif . | Autumn harvest |
| Khasra girdawari . | Harvest inspection register |
| Lakh . | One hundred thousands (100,000) |
| Lambardar . | Village headman |
| Lao . | Laterally well rope Well area worked by two (generally) yoke of bullocks |
| Mali . | A Hindu caste |
| Malikana . | Fee paid in recognition of proprietary title |
| Mash . | An autumn pulse (<i>Phaseolus radiatus</i>) |
| Maund . | Eighty lbs |
| Meo . | A Muhammadan caste |
| Mewat . | Tract where Meos live |
| Moth . | An autumn pulse (<i>Phaseolus aconitifolius</i>) |
| Mung .. | An autumn pulse (<i>Phaseolus mungo</i>) |
| Nala . | A stream |
| Pakka . | (Of a well) lined with masonry |

| Vernacular | English. |
|--------------|------------------------------------------------------------------------------------------------|
| Pala | The dwarf ber (plum) |
| Pargana . | A group of estates forming a sub-division of a district or tahsil |
| Pattidari .. | Held on ancestral or customary shares (a form of village tenure) |
| Patwari | A village accountant |
| Pula . | Munj grass |
| Rabi | Spring harvest |
| Rajbaha .. | A distributary of a canal |
| Reh | A saline efflorescence in the soil |
| Sarson , | Rape seed |
| Ser . | A measure of weight=one-fortieth of a maund (Q V) |
| Seri | A cess of one ser per maund of the produce taken by landlords |
| Sheikh | A Muhammadan caste |
| Tahsil . | Sub-division of a district in charge of a Tahsildar |
| Teramira . | Rape seed |
| Taria | A man who makes gar (Q V) |
| Til . | Sesame |
| Urd | The same as mash (Q V) |
| Zabti ... | Cash rents levied on account of crops of which the produce is not divided |
| Zamindar | Landowner |
| Zamindari . | A form of tenure where the village is owned by a single proprietor or set of joint proprietors |

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No 57

STATEMENTS.

STATEMENT I — RAINFALL

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-----------------|-------|-------|--------|-----------|-------------------|---------|----------|----------|---------|----------|-------|-------|------|--------------------|------------|
| Year | June | July | August | September | Total four months | October | November | December | January | February | March | April | May | Total eight months | Total year |
| 1885-86 | 6 10 | 3 50 | 18 70 | | 28 50 | | | 60 | 20 | | 20 | | 20 | 120 | 295 |
| 1886-87 | 6 20 | 10 80 | 7 00 | 1 40 | 25 40 | 60 | | | 20 | | | | | 80 | 281 |
| 1887-88 | | 13 10 | 14 60 | 5 60 | 33 30 | | | | 20 | 70 | 50 | | 40 | 1 60 | 35 10 |
| 1888-89 | 60 | 6 45 | 6 35 | 7 75 | 21 15 | 85 | | | 80 | 1 10 | 25 | | 45 | 3 45 | 24 60 |
| 1889-90 | 05 | 5 10 | 15 60 | | 20 75 | | | | | | 43 | | | 43 | 21 15 |
| 1890-91 | 6 50 | 12 98 | 8 14 | 2 22 | 29 84 | | | 20 | 72 | | 1 80 | | 40 | 8 12 | 32 5 |
| 1891-92 | 52 | 4 22 | 8 19 | 6 08 | 19 01 | 57 | | | 51 | 05 | | | 46 | 1 59 | 20 60 |
| 1892-93 | 1 50 | 4 47 | 18 47 | 5 35 | 24 79 | | | 20 | 1 30 | 1 99 | 49 | | 1 92 | 5 80 | 30 7 |
| 1893-94 | 4 88 | 14 15 | 2 84 | 6 04 | 27 91 | | 85 | | 2 87 | 12 | 13 | | 06 | 3 34 | 31 7 |
| 1894-95 | 2 28 | 5 84 | 12 08 | 9 39 | 29 57 | | 20 | 2 76 | 58 | 1 48 | 5 9 | 31 | | 5 92 | 30 40 |
| 1895-96 | 2 10 | 5 22 | 7 02 | 29 | 15 53 | | | 55 | | 23 | 14 | 18 | 04 | 1 09 | 16 62 |
| 1896-97 | 1 67 | 11 34 | 4 70 | 73 | 18 44 | 06 | 98 | 60 | 08 | 37 | 38 | | 50 | 3 01 | 21 45 |
| 1897-98 | 1 59 | 9 08 | 10 07 | 1 04 | 21 76 | | | | | 2 01 | | 03 | 63 | 3 27 | 23 03 |
| 1898-99 | 1 41 | 4 35 | 4 29 | 2 14 | 12 19 | | | 37 | | 13 | | 03 | 86 | 1 39 | 18 53 |
| 1899-1900 | 10 41 | 4 18 | 52 | 55 | 15 86 | 08 | | | 05 | | 16 | 44 | 25 | 98 | 16 64 |
| 1900-01 | 2 00 | 2 82 | 49 | 13 50 | 22 81 | 32 | | 2 37 | 1 23 | 1 17 | | | 05 | 5 14 | 27 8 |
| 1901-02 | 97 | 5 37 | 6 92 | 42 | 13 68 | | | | | | | 02 | 03 | 05 | 13 7 |
| 1902-03 | 3 17 | 8 11 | 8 92 | 4 42 | 24 62 | 50 | | 06 | 02 | 04 | | 11 | 16 | 89 | 25 51 |
| 1903-04 | 10 | 3 38 | 7 37 | 2 27 | 13 13 | 47 | | 56 | 18 | 1 20 | | | 1 53 | 4 31 | 17 44 |
| 1904-05 | 1 22 | 9 40 | 12 12 | 8 84 | 31 58 | | 98 | 45 | 79 | 37 | 37 | | | 2 97 | 34 5 |
| 1905-06 | 93 | 6 05 | 2 58 | 3 37 | 12 93 | | | | | 2 05 | 66 | | 12 | 2 85 | 16 75 |
| Average | 2 58 | 7 13 | 8 42 | 3 85 | 22 01 | 16 | 13 | 39 | 48 | 60 | 36 | 05 | 40 | 2 55 | 24 50 |
| Gazette average | 2 59 | 6 77 | 7 62 | 4 23 | 21 21 | 20 | 10 | 39 | 41 | 51 | 24 | 08 | 49 | 2 42 | 23 63 |

STATEMENT No II - AREA

STATEMENT II-ARFA.

| Assessment Circle | Year | Total area | Forest | UNCULTIVATED OTHER THAN FORESTS | | | | Detail | 9 | AVERAGE ARPA FOR THE YEARS 1900-01 TO 1904-05 | | | | WELLS IRRIGATING LAND | | | 10 | REMARKS |
|-------------------|------------------|------------|--------|---------------------------------|----------------------------|-------|------------------------|-----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------|--|-------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------|
| | | | | Not available for cultivation | Available for cultivation | | Total crops harvested. | | | Area of crops failed. | Total area sown | New wells and old wells which have been made fit for use during the year | Fallen in or become otherwise unfit for use during the year | Total in use or fit for use | | | | |
| | | | | | Unappropriated forest land | Other | | | | | | | | | | | | |
| Bagar | Last settlement | 75,897 | | 5,821 | | | 2,304 | Chahi
Dahri
Narmot
Magda
Bhur | 4,831
1,041
48,733
0,214
4,436 | | | | | | | | Kachcha wells, and Dhonkhis and Jhalari in use during the year | |
| Do | 1905-06 | 75,446 | | 6,156 | | | 2,083 | Total | 67,756 | | | | | | | | 17 | Nahri includes Chahi Nahri and Narmot includes Chahnot throughout this statement |
| | | | | | | | | Chahi
Nahri
Abi
Dahri
Narmot
Magda
Bhur | 5,680
10,075
2,664
586
35,314
8,148
4,117 | 2,522
8,487
257
42,027
2,071
8,843 | 110
253
30
10,412
2,071
1,276 | 2,635
8,690
287
53,030
11,720
5,119 | 23 | 1 | | 478
376
101 | 190
65
131 | |
| Bhadar | Last settlement. | 50,020 | | 10,850 | | | 805 | Total | 67,207 | 67,336 | 14,152 | 81,487 | | | | | | Nahri includes Chahi Nahri and Narmot includes Chahnot throughout this statement |
| | | | | | | | | Chahi
Dahri
Narmot
Magda
Bhur | 3,008
2,887
3,752
5,606
23,314 | | | | | | | 389
272
117 | 220
133
87 | |
| Do. | 1905-06 | 50,468 | | 10,817 | | | 847 | Total | 38,965 | | | | | 35 | | | | Nahri includes Chahi Nahri and Narmot includes Chahnot throughout this statement |
| | | | | | | | | Chahi
Abi
Dahri
Narmot
Magda
Bhur | 4,807
266
1,004
4,038
6,188
23,400 | 2,419
44
609
4,628
6,277
21,200 | 208
22
200
1,372
1,940
0,862 | 2,656
66
803
5,095
8,117
28,101 | | 7 | | 631
421
110 | 556
252
304 | |

| Dahar Mitha | Last Settled
men | 23,730' | 7,365' | 19 | Chahí
Dahri
Narmot
Magda
Bhur | 3,136
8,117
7,214
3,524
3,001
25,050 | 1,756
5
1,505
10,056
5,016
4,113
23,000 | 197
1
285
8,419
2,011
1,918
7,861 | 1,352
6
1,860
13,475
7,055
6,523
80,801 | 0 | In use
Not in use | Kachcha wells
Dhonkias | 101
135 |
|---------------|----------------------|---------|--------|-----|--------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------|-----|----------------------|---------------------------|-------------------|
| Dahar Kharf | Last Settled
ment | 23,669 | 1,008 | 116 | Chahí
Dahri
Narmot
Magda
Bhur | 1,210
5,871
8,104
3,310
2,110
20,052 | ..
..
..
..
..
.. | ..
..
..
..
..
.. | ..
..
..
..
..
.. | 140 | In use
Not in use | Kachcha wells
Dhonkias | 208
77
131 |
| Do, " | 1905 03 | 22,070 | 1,008 | 158 | Chahí
Abi
Dahri
Narmot
Magda
Bhur | 1,782
537
1,087
11,387
3,216
2,020
20,897 | ..
..
..
..
..
..
.. | 111
128
34
3,700
1,064
785
5,368 | 987
177
34
15,080
4,553
3,211
24,351 | 13 | In use
Not in use | Kachcha wells
Dhonkias | 600
112
488 |
| Chikrot fixed | Last Settled
ment | 12,408 | 725 | 318 | Chahí
Dahri
Narmot
Magda
Bhur | 62
4,039
5,097
200
311
11,335 | ..
..
..
..
..
.. | ..
..
..
..
..
.. | ..
..
..
..
..
.. | 9 | In use
Not in use | Dhonkias | 19 |
| Fluctuating | Ditto | 1,310 | 21 | | Dahri | 1,206 | .. | .. | .. | | In use
Not in use | Dhonkias | 19 |
| Total | Ditto | 13,727 | 719 | 318 | | 12,030 | .. | .. | .. | | In use
Not in use | Dhonkias | 19 |
| Fixed | 1905 00 | 12,390 | 761 | 506 | Chahí
Abi
Dahri
Narmot
Magda
Bhur | 52
131
2,627
7,081
302
836
11,033 | ..
..
..
..
..
..
.. | 24
63
21
2,558
85
30
2,782 | 82
258
149
0,415
373
219
10,100 | 1 | In use
Not in use | Kachcha wells
Dhonkias | 101
98 |
| Fluctuating | Ditto | 1,300 | 23 | 306 | Dahri | 911 | .. | 197 | 577 | | In use
Not in use | Kachcha wells
Dhonkias | 101
3 |
| Total | Ditto | 13,690 | 784 | 902 | | 11,941 | 8,003 | 2,980 | 11,073 | 1 | In use
Not in use | Kachcha wells
Dhonkias | 98 |

STATEMENT II--concluded

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|--------------------|-----------------|------------|--------|---------------------------------|---------------------------|-------|----------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------|--------------------------------------------------------------|---------|
| Asessment Circle | Year | Total area | Forest | UNCULTIVATED OTHER THAN FORESTS | | | Detail | Total cultivated area | Average area for the years 1800-01 to 1904-05 | | | WELLS IRRIGATING LAND | | | Kacheha wells and Dhenkhis and Jhalas in use during the year | REMARKS |
| | | | | Not available for cultivation | Available for cultivation | | | | Total crops harvested | Area of crops failed | Total area sown | New wells and old wells which have been made fit for use during the year | Fallon in or become otherwise unfit for use during the year | Total in use or fit for use | | |
| | | | | | Unappropriated Government | Other | | | | | | | | | | |
| Total Tahsil Fixed | Last Settlement | 201,326 | | 32,310 | | 4,051 | Chahi
Dahri
Narmot
Magda
Bhur
Total | 12,681
22,187
71,031
21,911
31,110
161,900 | | | | | | In use 871
Not in use 50 | 039
Kacheha wells 259
Dhenkhis 380 | |
| | Ditto | 1,310 | | 21 | | | Dahri | 1 20 | | | | | | In use 631
Not in use 50 | 089
Kacheha wells 250
Dhenkhis 380 | |
| | Total | 202,636 | | 32,330 | | 4,051 | | 160 25 | | | | | | | | |
| Fluctuating | 1905-06 | 200,658 | | 32,822 | | 4,384 | Chahi
Dahri
Narmot
Magda
Bhur
Total | 16,807
10,177
3,101
9 22
66 66
21,170
43,022
103,165 | 7,956
8,117
591
2 392
57 300
24,717
32,767
151 811 | 1,531
253
211
637
97 012
7 101
10 871
11,156 | 8,309
9,190
897
9 129
97 012
11,815
4 123
102 900 | 51 | 16 | In use 1,587
Not in use 347 | 2,107
Kacheha wells 600
Dhenkhis 1,667 | |
| | Ditto | 1 300 | | 28 | | 367 | Dahri | 911 | 180 | 167 | 177 | 51 | 16 | In use 1,547
Not in use 337 | 2,107
Kacheha wells 600
Dhenkhis 1,567 | |
| | Total | 201,958 | | 32,850 | | 4,751 | | 161,371 | 1,971 | 11 355 | 103,076 | | | | | |

STATEMENT IV -- POPULATION AND CATTLE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|-------------------|-----------------|------------|---------|--------------------|--------------------|---------|----------------|---------------|-------------|-------|--------|-------------------|-------|---------|--------|-------|-------|------------|----------|----------|---------|
| Assessment Circle | Last Settlement | | | | Population in 1881 | 1903-04 | | | | | | | | | | | | Population | | Remarks | |
| | Bullocks | All cattle | Ploughs | Bulls and bullocks | | Cows | Male buffaloes | Cow buffaloes | Young stock | Sheep | Goats | Horses and ponies | Mules | Donkeys | Camels | Carts | Boats | Ploughs | In 1891 | | In 1901 |
| | | | | | | | | | | | | | | | | | | | | | |
| Bangar | 8,403 | 19,322 | 4,016 | 42,146 | 8,544 | 7,036 | 258 | 5,021 | 10,718 | 1,788 | 18,742 | 986 | 5 | 1,322 | 49 | 830 | | 4,128 | 50,098 | 56,239 | |
| Blunder | 4,427 | 10,725 | 2,051 | 30,726 | 4,913 | 4,461 | 163 | 2,347 | 6,144 | 689 | 15,117 | 450 | 1 | 850 | 87 | 306 | | 2,368 | 27,836 | 33,427 | |
| Dahar Mitha | 3,188 | 7,897 | 1,608 | 16,591 | 2,896 | 2,410 | 144 | 1,574 | 3,500 | 909 | 9,180 | 260 | | 497 | 10 | 200 | | 1,527 | 15,694 | 19,621 | |
| Dahar Khari | 3,021 | 4,329 | 1,160 | 18,031 | 2,609 | 1,610 | 44 | 1,117 | 2,850 | 52 | 5,221 | 366 | | 396 | 16 | 303 | | 1,216 | 15,050 | 17,201 | |
| Chiknot | 1,411 | 1,240 | 665 | 6,515 | 961 | 738 | 29 | 514 | 1,151 | 148 | 2,473 | 105 | | 97 | 3 | 120 | | 436 | 5,190 | 5,596 | |
| Total | 20,458 | 43,513 | 9,803 | 1,14,347 | 19,923 | 16,285 | 635 | 10,701 | 21,366 | 3,59 | 30,763 | 2,167 | 6 | 3,162 | 165 | 1,819 | | 9,676 | 1,13,874 | 1,32,237 | |

STATEMENT V.—OWNERSHIP.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------|------------------------------|-----------------------|------------------------------------|---------|---------------------|-------------------|
| Assessment Circle | Year | Detail of main tribes | Number of owners and shareholders. | AREA | | Revenue assessed. |
| | | | | Total. | Of which cultivated | |
| | | | | | | R ^s |
| BANGAR | Last Quadrennial Attestation | Meo .. | 8,432 | 62,178 | 59,420 | 73,748 |
| | | Others .. | 909 | 13,268 | 7,823 | 5,913 |
| | | Total | 9,341 | 75,446 | 67,243 | 79,661 |
| | | | | | | |
| BEUDER | Do | Meo .. | 3,915 | 29,020 | 27,809 | 33,634 |
| | | Khanzada .. | 284 | 5,842 | 5,437 | 5,361 |
| | | Others .. | 245 | 21,626 | 5,543 | 5,425 |
| | | Total .. | 4,444 | 56,488 | 38,789 | 44,420 |
| DAHAR MITHA | Do | Meo .. | 2,576 | 27,499 | 21,416 | 39,131 |
| | | Sheikh .. | 1 | 3,040 | 2,635 | 6,000 |
| | | Others .. | 265 | 3,133 | 1,439 | 2,145 |
| | | Total .. | 2,842 | 33,672 | 25,490 | 47,276 |
| DAHAR KHARI | Do | Meo .. | 2,610 | 16,695 | 16,266 | 29,167 |
| | | Khanzada .. | 525 | 2,989 | 2,946 | 5,820 |
| | | Others .. | 401 | 2,986 | 1,696 | 2,424 |
| | | Total .. | 3,536 | 22,670 | 20,908 | 37,411 |
| CHIKHOT | Do | Meo .. | 1,575 | 12,329 | 11,293 | 14,457 |
| | | Others .. | 77 | 1,361 | 657 | 491 |
| | | Total .. | 1,652 | 13,690 | 11,950 | 14,948 |
| | | | | | | |
| TOTAL TAMEL | Do | Meo .. | 19,108 | 147,721 | 136,204 | 1,90,137 |
| | | Khanzada .. | 809 | 8,831 | 8,383 | 11,181 |
| | | Sheikh .. | 1 | 3,040 | 2,635 | 6,000 |
| | | Others .. | 1,897 | 42,374 | 17,158 | 16,398 |
| | | Total .. | 21,815 | 201,966 | 164,380 | 2,23,716 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|--------------------|-----------------------------|------------|---------------------|------------------------|----------------------|------------|---------------------|------------------------|-----------|------------|---------------------|------------------------|----------------------|------------|---------------------|------------------------|
| ASSESSMENT CIRCLE. | SALES SINCE LAST SETTLEMENT | | | | | | | | | | | | | | | |
| | TO ZAMINDARS | | | | | | | | TO OTHERS | | | | | | | |
| | BY OWNERS | | | | BY OCCUPANCY TENANTS | | | | BY OWNERS | | | | BY OCCUPANCY TENANTS | | | |
| | Area | | Consideration money | Average price per acre | Area | | Consideration money | Average price per acre | Area | | Consideration money | Average price per acre | Area | | Consideration money | Average price per acre |
| | Total | Cultivated | | | Total | Cultivated | | | Total | Cultivated | | | Total | Cultivated | | |
| Bangar | 506 | 491 | 53,531 | 105.8 | | | | | 142 | 137 | 15,938 | 112.6 | 3 | 3 | 300 | 100 |
| Dhuder | 1,549 | 1,037 | 40,636 | 26.2 | 177 | 176 | 8,978 | 50.7 | 508 | 294 | 8,460 | 18.6 | 283 | 280 | 17,385 | 61.4 |
| Dabar Mitha | 343 | 337 | 21,737 | 63.4 | 2 | 1 | 75 | 37.5 | 3,169 | 3,161 | 45,823 | 14.5 | 13 | 13 | 700 | 53.8 |
| Dabar Khari | 698 | 691 | 74,064 | 106.1 | 10 | 10 | 532 | 53.2 | 314 | 314 | 43,149 | 137.4 | | | | |
| Chikmot | 152 | 150 | 9,473 | 62.4 | | | | | 74 | 73 | 1,723 | 23.4 | | | | |
| Total | 3,546 | 2,706 | 1,09,446 | 61.4 | 189 | 187 | 9,585 | 50.7 | 4,197 | 3,969 | 1,16,146 | 27.7 | 299 | 296 | 18,385 | 61.5 |

SETTLEMENT AND EXISTING MORTGAGES.

| 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 |
|----------------------------------------|------------|---------------------|------------------------|----------------------|------------|---------------------|------------------------|-----------|-------------|---------------------|------------------------|----------------------|------------|---------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MORTGAGES WITH POSSESSION NOW EXISTING | | | | | | | | | | | | | | | | REMARKS. |
| TO ZAMINDARS | | | | | | | | TO OTHERS | | | | | | | | |
| BY OWNERS | | | | BY OCCUPANCY TENANTS | | | | BY OWNERS | | | | BY OCCUPANCY TENANTS | | | | |
| Area | | Consideration money | Average price per acre | Area | | Consideration money | Average price per acre | Area | | Consideration money | Average price per acre | Area | | Consideration money | Average price per acre | |
| Total. | Cultivated | | | Total | Cultivated | | | Total | Cultivated. | | | Total | Cultivated | | | |
| 12,129 | 12,077 | 5,91,327 | 48 8 | 997 | 994 | 50,170 | 50 3 | 5,708 | 5,672 | 2,77,538 | 48 6 | 714 | 718 | 32,103 | 45 0 | Zamindars are members of an agricultural tribe notified under the Land Alienation Act but in villages where the owners are not members of an agricultural tribe, the term includes transferees who are of the same tribe as the owners of the village |
| 5,985 | 5,948 | 2,57,486 | 43 0 | 1,088 | 1,048 | 55,722 | 51 2 | 2,752 | 2,720 | 89,200 | 32 4 | 637 | 627 | 29,111 | 45 7 | |
| 5,128 | 5,098 | 2,00,224 | 39 0 | 264 | 263 | 9,035 | 34 2 | 3,780 | 3,740 | 1,29,201 | 34 2 | 285 | 277 | 6,935 | 24 3 | |
| 6,507 | 6,486 | 3,77,154 | 58 0 | 355 | 355 | 21,428 | 60 4 | 4,123 | 4,099 | 2,30,447 | 55 9 | 223 | 223 | 15,110 | 67 8 | |
| 4,182 | 3,964 | 1,50,292 | 35 9 | 252 | 251 | 10,556 | 41 9 | 1,427 | 1,308 | 46,672 | 32 7 | 51 | 51 | 1,755 | 34 4 | |
| 33,931 | 33,575 | 15,76,463 | 46 5 | 2,956 | 2,911 | 1,46,909 | 49 7 | 17,785 | 17,537 | 7,73,056 | 43 5 | 1,910 | 1,691 | 85,014 | 44 5 | |

STATEMENT VII—concluded

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|-------------------|-----------|------------------|---------------|------------------|----------------|-----------------|--------------|----------------|----------------|-----------------|--------------|----------------|----------------|----------|
| Assessment Circle | Year | SALES | | | | MORTGAGES | | | | REDEMPTIONS | | | | REMARKS. |
| | | Cultivated area. | Land revenue. | Price in rupees. | Price per acre | Cultivated area | Land revenue | Mortgage money | Price per acre | Cultivated area | Land revenue | Mortgage money | Price per acre | |
| CHIVOR | 1886-87 | | | | | 550 | 712 | 18,868 | 33.7 | 185 | 219 | 4,384 | 26.4 | |
| | 1887-88 | | | | | 443 | 564 | 12,830 | 29.0 | 105 | 136 | 2,201 | 31.0 | |
| | 1888-89 | 10 | 10 | 467 | 46.7 | 741 | 941 | 21,410 | 28.9 | 157 | 195 | 4,738 | 30.2 | |
| | 1889-90 | | | 99 | | 296 | 435 | 7,800 | 24.7 | 162 | 143 | 2,363 | 23.2 | |
| | 1890-91 | 8 | 11 | 128 | 16.0 | 203 | 247 | 6,060 | 34.3 | 46 | 58 | 745 | 16.2 | |
| | Total | 18 | 21 | 694 | 38.6 | 2,242 | 2,899 | 67,396 | 30.1 | 575 | 751 | 14,411 | 25.1 | |
| | Average | 4 | 4 | 139 | | 448 | 580 | 13,479 | | 115 | 160 | 2,882 | | |
| | 1891-92 | 5 | 7 | 700 | 140.0 | 74 | 115 | 3,000 | 41.8 | 64 | 95 | 2,518 | 39.8 | |
| | 1892-93 | 34 | 43 | 4,860 | 142.9 | 483 | 621 | 14,703 | 30.4 | 464 | 598 | 12,920 | 27.9 | |
| | 1893-94 | 69 | 93 | 2,900 | 42.0 | 335 | 446 | 8,052 | 24.0 | 441 | 625 | 12,738 | 28.9 | |
| CHIVOR | 1894-95 | 7 | 8 | 290 | 41.4 | 345 | 455 | 12,340 | 35.8 | 189 | 253 | 4,654 | 24.6 | |
| | 1895-96 | 16 | 21 | 590 | 36.9 | 331 | 408 | 13,540 | 40.9 | 198 | 261 | 5,828 | 29.7 | |
| | Total | 131 | 172 | 9,240 | 71.3 | 1,568 | 2,043 | 61,743 | 33.0 | 1,354 | 1,832 | 38,662 | 28.6 | |
| | Average | 26 | 35 | 1,868 | | 314 | 409 | 10,348 | | 271 | 368 | 7,732 | | |
| | 1896-97 | 29 | 50 | 2,139 | 73.8 | 283 | 324 | 8,964 | 31.5 | 128 | 154 | 3,478 | 27.5 | |
| | 1897-98 | 2 | 3 | 450 | 225.0 | 547 | 672 | 26,147 | 48.7 | 735 | 915 | 25,096 | 34.1 | |
| | 1898-99 | 6 | 9 | 619 | 103.2 | 429 | 564 | 21,010 | 49.0 | 396 | 584 | 13,114 | 33.1 | |
| | 1899-1900 | 6 | 7 | 399 | 66.5 | 417 | 616 | 16,215 | 38.9 | 96 | 112 | 3,604 | 39.6 | |
| | 1900-01 | 6 | 8 | | | 152 | 195 | 5,821 | 38.3 | 104 | 117 | 3,533 | 34.0 | |
| | Total | 49 | 77 | 3,607 | 73.6 | 1,817 | 2,371 | 78,157 | 43.2 | 1,458 | 1,852 | 49,046 | 33.6 | |
| CHIVOR | Average | 10 | 16 | 722 | | 363 | 474 | 15,631 | | 291 | 376 | 9,809 | | |
| | 1901-02 | | | | | 160 | 193 | 6,895 | 43.1 | 86 | 106 | 2,509 | 29.2 | |
| | 1902-03 | | | | | 159 | 202 | 5,783 | 36.4 | 88 | 110 | 2,002 | 22.8 | |
| | 1903-04 | | | | | 160 | 212 | 5,140 | 32.2 | 84 | 89 | 1,874 | 20.3 | |
| | 1904-05 | 1 | 1 | 150 | 150.0 | 167 | 224 | 5,714 | 34.2 | 74 | 102 | 2,107 | 28.6 | |
| | 1905-06 | 6 | 8 | 1,000 | 166.7 | 141 | 226 | 4,659 | 33.0 | 71 | 92 | 1,621 | 22.8 | |
| | Total | 7 | 9 | 1,150 | 164.3 | 787 | 1,057 | 28,193 | 35.8 | 383 | 499 | 10,113 | 26.4 | |
| | Average | 2 | 2 | 230 | | 157 | 212 | 5,668 | | 77 | 100 | 2,023 | | |
| TOTAL TARIK | 1886-87 | 113 | 589 | 6,596 | 58.4 | 6,195 | 8,400 | 1,51,770 | 24.5 | 1,658 | 2,501 | 37,490 | 22.6 | |
| | 1887-88 | 145 | 498 | 5,651 | 39.0 | 6,511 | 9,326 | 1,90,791 | 29.6 | 1,513 | 2,416 | 34,675 | 22.9 | |
| | 1888-89 | 90 | 413 | 5,328 | 59.2 | 4,828 | 6,891 | 1,15,298 | 23.9 | 1,188 | 2,008 | 25,530 | 21.5 | |
| | 1889-90 | 132 | 221 | 9,890 | 74.9 | 3,308 | 5,565 | 97,259 | 28.6 | 2,270 | 3,428 | 59,107 | 22.1 | |
| | 1890-91 | 551 | 1,619 | 11,119 | 20.2 | 2,997 | 4,463 | 92,638 | 30.9 | 2,308 | 3,298 | 43,111 | 18.7 | |
| | Total | 1,031 | 3,030 | 38,584 | 37.4 | 23,929 | 35,145 | 6,47,765 | 27.1 | 8,937 | 16,642 | 1,90,913 | 21.4 | |
| | Average | 206 | 606 | 7,717 | | 4,786 | 7,029 | 1,29,553 | | 1,787 | 2,730 | 68,183 | | |
| | 1891-92 | 128 | 216 | 8,558 | 67.6 | 3,695 | 4,248 | 81,576 | 30.3 | 2,583 | 3,890 | 55,412 | 21.5 | |
| | 1892-93 | 81 | 185 | 13,166 | 162.5 | 2,932 | 4,879 | 1,04,151 | 35.5 | 3,894 | 6,116 | 96,841 | 24.9 | |
| | 1893-94 | 260 | 424 | 16,167 | 62.2 | 5,329 | 9,118 | 2,12,174 | 35.8 | 6,178 | 9,768 | 1,43,900 | 23.3 | |
| TOTAL TARIK | 1894-95 | 251 | 364 | 11,950 | 47.6 | 3,075 | 5,508 | 1,88,287 | 37.6 | 2,914 | 4,315 | 70,446 | 24.2 | |
| | 1895-96 | 142 | 199 | 9,766 | 68.6 | 3,944 | 5,726 | 1,41,344 | 35.8 | 2,975 | 4,322 | 77,749 | 26.0 | |
| | Total | 882 | 1,368 | 59,677 | 69.2 | 19,175 | 29,279 | 8,77,532 | 65.3 | 18,544 | 28,411 | 4,44,345 | 15.6 | |
| | Average | 172 | 274 | 11,935 | | 3,835 | 5,856 | 1,35,506 | | 3,709 | 5,982 | 88,869 | | |
| | 1896-97 | 142 | 231 | 12,456 | 87.7 | 4,646 | 7,055 | 1,94,779 | 41.9 | 4,235 | 6,186 | 1,21,587 | 28.7 | |
| | 1897-98 | 230 | 408 | 25,388 | 110.3 | 8,575 | 12,748 | 4,70,935 | 54.9 | 11,148 | 17,041 | 3,73,749 | 33.5 | |
| | 1898-99 | 137 | 243 | 17,332 | 128.9 | 5,834 | 8,832 | 3,30,636 | 58.7 | 4,465 | 7,088 | 1,61,164 | 36.1 | |
| | 1899-1900 | 208 | 347 | 23,873 | 141.2 | 4,918 | 7,528 | 1,84,072 | 37.4 | 1,439 | 2,160 | 55,193 | 33.3 | |
| | 1900-01 | 459 | 782 | 47,888 | 104.2 | 4,856 | 6,357 | 2,10,244 | 48.2 | 1,514 | 2,481 | 60,177 | 39.7 | |
| | Total | 1,176 | 2,010 | 1,32,417 | 112.5 | 28,329 | 42,520 | 16,90,866 | 49.1 | 22,801 | 34,866 | 7,71,850 | 33.9 | |
| TOTAL TARIK | Average | 235 | 402 | 28,483 | | 5,668 | 8,504 | 2,78,183 | | 4,560 | 6,977 | 1,54,370 | | |
| | 1901-02 | 131 | 251 | 12,484 | 95.3 | 2,598 | 3,806 | 1,20,190 | 46.3 | 1,811 | 2,812 | 55,292 | 30.5 | |
| | 1902-03 | 219 | 370 | 15,827 | 72.3 | 3,690 | 5,123 | 1,63,015 | 44.2 | 1,927 | 2,757 | 63,250 | 32.8 | |
| | 1903-04 | 188 | 315 | 9,953 | 53.5 | 3,217 | 4,484 | 1,41,065 | 43.8 | 2,106 | 3,027 | 72,081 | 34.2 | |
| | 1904-05 | 141 | 203 | 10,430 | 74.0 | 2,843 | 4,004 | 1,18,232 | 41.5 | 1,984 | 2,870 | 58,359 | 29.7 | |
| | 1905-06 | 527 | 821 | 20,883 | 39.4 | 2,644 | 3,518 | 1,20,688 | 45.8 | 1,994 | 2,606 | 70,033 | 35.1 | |
| | Total | 1,204 | 1,980 | 69,557 | 57.8 | 14,992 | 20,735 | 6,63,190 | 44.2 | 9,802 | 16,869 | 3,18,995 | 32.5 | |
| | Average | 241 | 392 | 13,911 | | 2,998 | 4,147 | 1,32,638 | | 1,960 | 2,774 | 63,799 | | |

STATEMENT VIII.—KHABIF CROP RETURN : AVERAGE OF THE FIVE YEARS 1900 TO 1904.

STATEMENT VIII.—Kharif Crop Return: AVERAGE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|-----------------|-----------------------------|---------|--------|-------|---------------|--------|--------|------|-------|-------|---------|--------------|--------|
| AMERICAN CIRCLE | Description of cultivation. | CEREALS | | | | | PULSES | | | | | | |
| | | Jowar | Bajra | Maize | Other cereals | Total | Mung | Masb | Moths | Guar | Chaulia | Other pulses | Total |
| BANGOR | Chahu | 6 | 1 | 6 | 2 | 15 | | 1 | | | | | 1 |
| | Nabri | 7 | 19 | 135 | 107 | 328 | 3 | 49 | 42 | 25 | 5 | | 128 |
| | Dabri | 91 | 21 | | | 112 | 1 | 1 | | 1 | | | 3 |
| | Narmot | 6,155 | 12,057 | 119 | 168 | 18,517 | 658 | 237 | 181 | 1,739 | 33 | 1 | 2,820 |
| | Mangda | 677 | 4,017 | 14 | 10 | 4,718 | 125 | 19 | 31 | 567 | 6 | | 747 |
| | Bhur | 49 | 2,207 | 3 | 2 | 2,261 | 58 | 1 | 41 | 366 | 25 | | 491 |
| | Total | 7,045 | 18,322 | 277 | 307 | 25,951 | 845 | 308 | 275 | 2,698 | 68 | 5 | 4,189 |
| MUDRA | Chahu | 3 | 1 | 1 | 1 | 6 | | | 4 | | | | 4 |
| | Abi | | 16 | | 1 | 16 | 1 | | 1 | 1 | | | 3 |
| | Dabri | 65 | 96 | 2 | 9 | 172 | 9 | 1 | 3 | 17 | | | 30 |
| | Narmot | 659 | 601 | 80 | 30 | 1,420 | 74 | 19 | 19 | 165 | 10 | | 307 |
| | Mangda | 266 | 2,330 | 2 | 14 | 2,612 | 185 | 10 | 78 | 450 | 70 | | 783 |
| | Bhur | 285 | 10,493 | 2 | 15 | 10,795 | 832 | 13 | 445 | 2,588 | 756 | | 4,674 |
| | Total | 1,178 | 13,736 | 37 | 70 | 15,021 | 1,101 | 48 | 500 | 3,241 | 836 | | 5,811 |
| DABH MITHA | Chahu | 3 | 2 | 11 | 2 | 18 | | | | 1 | | | 1 |
| | Abi | | 4 | | | 4 | | | | | | | |
| | Dabri | 93 | 328 | 1 | 2 | 424 | 25 | 8 | 7 | 21 | 2 | | 58 |
| | Narmot | 2,085 | 2,088 | 19 | 59 | 4,251 | 412 | 85 | 87 | 308 | 18 | | 910 |
| | Mangda | 237 | 1,546 | 2 | 13 | 1,798 | 186 | 4 | 86 | 341 | 30 | | 597 |
| | Bhur | 94 | 2,097 | | 17 | 2,206 | 175 | | 118 | 377 | 82 | | 754 |
| | Total | 2,612 | 6,065 | 33 | 93 | 8,703 | 749 | 94 | 238 | 1,046 | 132 | | 2,320 |
| DABH KHARI | Chahu | 1 | | | | 1 | | | | | | | |
| | Abi | 24 | 69 | | 2 | 95 | 5 | 1 | 4 | 8 | | | 18 |
| | Dabri | 5 | 14 | | | 19 | 1 | | | | | | 1 |
| | Narmot | 1,366 | 1,493 | 12 | 90 | 2,963 | 116 | 57 | 53 | 519 | 9 | | 753 |
| | Mangda | 160 | 1,093 | 2 | 7 | 1,168 | 53 | 6 | 27 | 307 | 5 | | 404 |
| | Bhur | 64 | 859 | 1 | 1 | 925 | 66 | 4 | 49 | 270 | 37 | | 416 |
| | Total | 1,616 | 3,438 | 15 | 100 | 5,171 | 230 | 68 | 139 | 1,104 | 61 | | 1,692 |
| CHIKHOT | Chahu | | | | | | | | | | | | |
| | Abi | 6 | 2 | | | 8 | | | | 1 | | | 1 |
| | Fixed | 17 | 7 | | 3 | 27 | 1 | | | 1 | | | 2 |
| | Fluctuating | 32 | 69 | | 4 | 85 | 9 | 1 | 7 | 40 | 2 | | 56 |
| | Total | 49 | 66 | | 7 | 122 | 10 | 1 | 7 | 41 | 2 | | 61 |
| | Narmot | 1,120 | 975 | 30 | 19 | 2,178 | 93 | 25 | 7 | 136 | 1 | | 265 |
| TOTAL | Mangda | 71 | 60 | | | 131 | 3 | 1 | 3 | 15 | 1 | | 23 |
| | Bhur | 10 | 74 | | | 84 | 6 | | 6 | 20 | 1 | | 31 |
| | Fixed | 1,102 | 1,118 | 36 | 42 | 2,388 | 102 | 20 | 15 | 173 | 2 | | 322 |
| | Fluctuating | 32 | 69 | | 4 | 95 | 9 | 1 | 7 | 40 | 2 | | 61 |
| | Total | 1,220 | 1,177 | 36 | 46 | 2,483 | 111 | 20 | 22 | 213 | 4 | | 351 |
| | | | | | | | | | | | | | |
| TOTAL | Chahu | 13 | 4 | 18 | 5 | 40 | | 1 | 4 | 1 | | | 6 |
| | Nabri | 67 | 19 | 125 | 107 | 328 | 3 | 49 | 42 | 25 | 5 | | 128 |
| | Dabri | 30 | 21 | | 3 | 123 | 6 | 1 | 5 | 16 | | | 29 |
| | Narmot | 271 | 41 | 3 | 19 | 774 | 27 | 5 | 16 | 57 | 2 | | 311 |
| | Mangda | 32 | 57 | | 4 | 93 | 6 | 1 | 7 | 46 | 2 | | 72 |
| | Bhur | 702 | 22 | 3 | 15 | 847 | 40 | 6 | 17 | 3 | | | 103 |
| TOTAL | Chahu | 113 | 1,411 | 21 | 40 | 2,385 | 1,252 | 42 | 327 | 1,507 | 71 | 1 | 6,074 |
| | Nabri | 1,177 | 8,921 | 2 | 48 | 10,148 | 262 | 40 | 231 | 1,047 | 111 | | 26,141 |
| | Dabri | 1,072 | 1,771 | 6 | 30 | 16,279 | 1,126 | 20 | 60 | 1,041 | 21 | | 6,074 |
| | Narmot | 13,540 | 42,657 | 202 | 610 | 57,009 | 3,040 | 742 | 1,317 | 5,247 | 1,002 | | 14,448 |
| | Mangda | 72 | | | | | | | | | | | |
| | Bhur | 1,174 | 42,777 | 267 | 11 | 47,449 | 2,607 | 942 | 1,224 | 5,704 | 1,002 | | 14,448 |

OF THE FIVE YEARS 1900 TO 1904

| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
|-----------------------------------------|-----------|---------------------------------|-----------------------------|-------------------|----------|------------------------|------------------------|---------------------------------------|----------------------------|--------------------|------------------------------------------------|------------------------------------------|--------------------------------------------------|--------------------------------------------------------------|
| Cotton | Sugarcane | TIL | Ump | Chillies | Indigo | Fruits | Vegetables | Charl | Other fodder | Others | Total area of crops harvested | Total area failed | Total area sown | REMARKS |
| 41
2 633
25
3,252
681
95 | 627 | 1
13
6
630
93
16 | 1
102
186
91
10 | 7
3
2 | 124 | 8
1
1 | 8
9
7
1
3 | 2
287
2 089
268
21 | 4
198
49
46 | 1
6
2
1 | 76
4,327
150
27,729
8 574
2,945 | 3
142
5
5,665
1,161
965 | 79
4 469
155
33,394
7 724
3,910 | Nahrri includ
chahi-nah
and narn
includ
chiknot. |
| 5 757 | 638 | 759 | -330 | -12 | 126 | 14 | 28 | 2,679 | 297 | 10 | 41,600 | 7,931 | 49,731 | |
| 97
3
41
418
435
711 | 1 | 1
8
56
43
45 | 1
1
9
18
48 | 13
1
1
1 | 1 | 3
6
1
7 | 4
5
7
13 | 7
3
20
299
216
2 4 | 1
17
82
41
112 | 2
1
2
2 | 188
25
290
2,605
4 170
16,664 | 7
10
121
522
804
4,484 | 145
35
411
3 127
4 574
21,148 | |
| 1,705 | 2 | 153 | 77 | 15 | 1 | 17 | 29 | 801 | 259 | 7 | 23,892 | 5,949 | 29 840 | |
| 80
1
172
810
366
235 | | 4
32
417
59
25 | 24
3
30
14
8 | 24
1
1 | | 16
1
6
1
3 | 16
1
6
1
3 | 16
1
524
1 4
3 | 6
6
14 | 2 | 161
5
720
6,966
3,017
3,253 | 10
1
138
1,632
929
1,022 | 171
6
852
8,768
8 946
4 305 | |
| 1 064 | | 537 | 55 | 25 | | 1 | 27 | 768 | 26 | 2 | 14 145 | 3 930 | 18,078 | |
| 4
16
1,010
123
151 | | 12
241
23
9 | 12
26
11
8 | 1 | | 1
1
5
4
4 | 14
1
5
4
4 | 1
12
847
136
34 | | | 50
142
5,91
2 6
1,551 | 1
45
1
1,176
323
259 | 34
187
21
7,077
2,406
1,540 | |
| 1,513 | | 273 | 45 | 13 | | 32 | 1,030 | 57 | | 1 | 9,700 | 1,830 | 11 565 | |
| 1
2
46
48
532
53
12 | | 1
2
2
4
177
4 | 1
1
1
1 | 2 | | | | 5
16
13
23
658
11
7 | | | 16
48
216
265
3,692
165
134 | 6
13
70
83
1,056
20
13 | 2
22
62
266
34
4,948
25
147 | |
| 622
45
668 | | 184
2
186 | 19
1
20 | 5
1
5 | 19
1 | | 2 | 697
13
710 | 35
1
25 | 1 | 4 275
216
4 494 | 1 109
70
1,170 | 5,356
256
5,672 | |
| 2 133
2 223
21 | 627 | 6
13
11 | 1
102
1 | 5
3 | 124 | 4
6 | 42
28
297
20 | 28
1
207
20 | 1
4
4 | 4
1 | 410
4 327
15 | 21
142
62 | 431
4,63
250 | |
| 2 35
48 | 1 | 48
2 | 4
1 | | | 1 | 1 | 70
13 | 28 | | 1,230
216 | 250
70 | 1,511
250 | |
| 235 | 1 | 50 | 5 | | | 1 | 63 | 27 | | | 1 471 | 34 | 1 507 | |
| 6 031
1 510
1 204
12,201
40 | 12
640 | 1 522
26
70
190
2 | 26
70
52
1 | 5
2
71 | 2
127 | 10
5
6
35 | 29
13
21
118 | 4 417
707
36
700
13 | 3
115
120
671 | 4
2
21
21 | 47 007
16 025
24 577
93 548
216 | 10 771
3 225
67
207 2
70 | 57 4
1 0
31 4
114 000
200 | |
| 12 307 | 640 | 1 908 | 320 | 71 | 127 | 30 | 118 | 6006 | 671 | 21 | 54 064 | 20 522 | 114 586 | |

STATEMENT IX — RABI CROP RETURN

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-------------------|----------------------------|--------------------|--------|-------|--------|--------|--------|------|-------|--------------|--------|
| Assessment Circle | Description of cultivation | CEREALS AND PULSES | | | | | | | | | |
| | | Wheat | Barley | Gojra | Gram | Gochhi | Bejhar | Pons | Arhar | Other pulses | Total |
| BANGOR | Chahi | 451 | 1,680 | 122 | 8 | 6 | | | | 6 | 2,273 |
| | Nabri | 884 | 1,456 | 141 | 920 | 430 | | | 10 | 12 | 3,895 |
| | Dabri | 14 | 18 | 10 | 35 | 20 | | | | | 95 |
| | Narmot | 593 | 2,426 | 161 | 9,304 | 801 | 649 | 34 | 18 | 6 | 14,083 |
| | Magda | 38 | 527 | 16 | 2,052 | 63 | 185 | 2 | 4 | 1 | 2,838 |
| | Bhur | 8 | 286 | 5 | 534 | 6 | 25 | | | | 814 |
| | Total | 1,986 | 6,343 | 465 | 12,943 | 1,326 | 817 | 70 | 32 | 25 | 24,000 |
| BRUDER | Chahi | 296 | 1,586 | 145 | 3 | 2 | | | | 13 | 2,047 |
| | Abi | 54 | 4 | 35 | 50 | 9 | | | | | 18 |
| | Dabri | 203 | 49 | 171 | 478 | 361 | 86 | | | 1 | 296 |
| | Narmot | 180 | 429 | 90 | 617 | 178 | 82 | 2 | 4 | | 1,785 |
| | Magda | 180 | 443 | 90 | 617 | 178 | 82 | 5 | 6 | | 1,617 |
| | Bhur | 327 | 1,323 | 213 | 918 | 309 | 125 | 1 | 8 | | 3,224 |
| | Total | 1,120 | 3,830 | 654 | 2,068 | 930 | 341 | 8 | 18 | 14 | 8,957 |
| DAHAR MIRA | Chahi | 285 | 976 | 59 | 5 | 4 | | | | 30 | 1,359 |
| | Dabri | 120 | 217 | 57 | 74 | 179 | | | | 9 | 739 |
| | Narmot | 195 | 948 | 173 | 958 | 201 | 62 | 1 | | 5 | 2,655 |
| | Magda | 121 | 626 | 93 | 269 | 206 | 161 | 3 | 11 | | 1,455 |
| | Bhur | 57 | 331 | 46 | 154 | 162 | 76 | 2 | 2 | 1 | 817 |
| | Total | 778 | 3,098 | 428 | 1,480 | 742 | 454 | 6 | 14 | 45 | 7,020 |
| DAHAR KHARI | Chahi | 105 | 550 | 36 | 4 | 5 | | | | 1 | 701 |
| | Abi | 46 | 46 | 6 | 68 | 42 | | | | 1 | 194 |
| | Dabri | 6 | | 1 | 3 | 4 | | | | | 12 |
| | Narmot | 450 | 1,729 | 177 | 1,067 | 1,261 | 101 | 10 | | 1 | 4,603 |
| | Magda | 69 | 481 | 55 | 367 | 163 | 22 | | 5 | | 1,162 |
| | Bhur | 41 | 24 | 49 | 195 | 78 | 3 | 4 | 3 | | 645 |
| | Total | 717 | 3,080 | 324 | 1,695 | 1,553 | 126 | 14 | 8 | 3 | 7,520 |
| CHIKNOT | Chahi | 2 | 36 | 3 | | | | | | | 41 |
| | Abi | 41 | 1 | 1 | 7 | 62 | | | | | 121 |
| | Fixed | 19 | 3 | 9 | 3 | 24 | | | | | 58 |
| | Fluctuating | 66 | 16 | 26 | 3 | 8 | | | | | 140 |
| | Total | 107 | 18 | 35 | 0 | 32 | | | | | 106 |
| | Narmot | 432 | 284 | 97 | 557 | 1,328 | 25 | | | | 2,731 |
| TOTAL | Magda | 14 | 12 | 17 | 16 | 32 | | | | | 91 |
| | Bhur | 1 | 6 | 2 | 23 | 20 | | | | | 53 |
| | Fixed | 509 | 351 | 130 | 606 | 1,464 | 25 | | | | 3,085 |
| | Fluctuating | 88 | 15 | 26 | 3 | 8 | | | | | 140 |
| | Total | 597 | 366 | 156 | 609 | 1,472 | 25 | | | | 3,225 |
| | | | | | | | | | | | |
| TOTAL TANSIL | Chahi | 1,139 | 4,830 | 385 | 20 | 17 | | | | 50 | 6,421 |
| | Nabri | 884 | 1,456 | 141 | 920 | 430 | | | 10 | 12 | 3,895 |
| | Abi | 87 | 60 | 7 | 65 | 113 | | | | 1 | 833 |
| | Fixed | 213 | 267 | 112 | 163 | 298 | 118 | 1 | | 10 | 1,202 |
| | Fluctuating | 88 | 15 | 26 | 3 | 8 | | | | | 140 |
| | Total | 301 | 302 | 138 | 166 | 306 | 119 | 1 | | 10 | 1,342 |
| TOTAL | Narmot | 1,933 | 5,816 | 779 | 12,451 | 3,956 | 1,018 | 10 | 38 | 12 | 56,047 |
| | Magda | 422 | 2,089 | 271 | 3,323 | 642 | 390 | 9 | 15 | 2 | 7,163 |
| | Bhur | 434 | 2,170 | 316 | 1,823 | 515 | 229 | 5 | 9 | | 5,556 |
| | Fixed | 5,112 | 16,708 | 1,981 | 18,770 | 6,016 | 1,763 | 99 | 72 | 87 | 50,617 |
| | Fluctuating | 88 | 15 | 26 | 3 | 8 | | | | | 140 |
| | Total | 5,200 | 16,723 | 2,007 | 18,773 | 6,023 | 1,763 | 99 | 72 | 87 | 50,757 |

AVERAGE OF THE FIVE YEARS 1901 TO 1905.

| 18 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|------------------------------------|--------------------------------|----------------------|--------------------|----------|------------------------|------------------------|--------------------|--------------------------|-----------------|---------------------|-------------------|-------------------------------------------------|------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------|
| OILSEEDS | | | | | | | | | | | | | | | |
| Sarson | Taramira | Other oilseeds | Dhania | Onions | Tobacco | Fruits | Vegetables | Miscellaneous food crops | Fodder | Carrots and turnips | Others | Total area of crops harvested | Total area failed | Total area sown. | Remarks |
| 64
155
10
564
95
25 | 2

225
138
58 |

1 | 1
3

2 | 31
0 | 21
1
6
1
1 | 8
6
1
1 | 22
25
1
1 | 1
14
2 | 7
3
1 | 18

5
2 | 8 | 2,446
4,110
107
14,898
2,078
898 | 107
111
25
4,747
920
311 | 2,558
4,221
182
19,645
3,996
1,209 | Nahr includes
chahri mahr
and marmot
includes chahri
knot |
| 913 | 423 | 1 | 6 | 37 | 32 | 13 | 49 | 17 | 11 | 25 | 8 | 25,535 | 6,221 | 31,756 | |
| 73
1
15
142
210
622 | 8

8
74
256
684 |

1
5
19 | 2

2 | 24 | 68

1 |

14
17
29 | 23 | 3 | 2

1
7 | 27 | 12 | 2,310
19
319
2,018
2,107
4,635 | 201
12
79
850
1,036
2,378 | 2,511
91
328
2,868
3,143
7,013 | |
| 1,139 | 1,005 | 25 | 4 | 24 | 69 | 60 | 23 | 3 | 10 | 27 | 12 | 11,408 | 4,556 | 15,964 | |
| 78
13
230
104
176 | 4
84
200
347
329 | 1 | 1

1 | 35 | 46 | | 30 | 3 | | 24 | 13
1
1
1 | 1,594
839
3,100
1,997
1,822 | 187
149
1,587
1,112
896 | 1,781
988
4,687
3,109
2,218 | |
| 697 | 964 | 1 | 2 | 35 | 48 | 9 | 30 | 3 | | 24 | 16 | 8,852 | 3,931 | 12,783 | |
| 52
9
1
446
146
97 | 4

156
98
128 |

1
2
2 | 1
1
2 | 20 | 18 | 1

3 | 21 | | 1 | 23 | 2

1 | 840
207
13
5,422
1,406
875 | 113
83

2,590
741
496 | 958
290
13
8,012
2,147
1,371 | |
| 751 | 384 | 5 | 13 | 20 | 18 | 4 | 31 | | 1 | 24 | 2 | 8,763 | 4,023 | 12,786 | |
| 4
1
12 |

11 | | 1
41
20 | 8 | | | 2 | | 11 | 3 | 1 | 56
177
79
164 | 24
59
8
127 | 80
236
87
291 | |
| 13 | 11 | | 20 | | | | | | | | 1 | 243 | 135 | 378 | |
| 138
12
1
156
12 | 23

1
24
11 | 1

1
1 | 76

138
1 | | 8 | | 2 | 16 | | 4 | 1
1 | 2,965
103
55
3,435
164 | 1,502
65
17
1,675
127 | 4,467
165
72
5,110
291 | |
| 165 | 25 | 1 | 138 | 8 | | | 2 | 16 | | 4 | 2 | 3,599 | 1,802 | 5,401 | |
| 273
155
14 | 7
2
4 | 1 | 6
3
41 | 118
6 | 173
1 | 1
6 | 98
25
11 | 7
14
11 | 12
3 | 25 | 34 | 7,246
4,110
403 | 632
111
154 | 7,878
4,221
557 | |
| 40
12 | 92
11 | | 20 | | | 2 | | | | | 1
1 | 1,357
164 | 261
127 | 1,618
291 | |
| 52 | 103 | | 20 | | | 2 | | | | | 2 | 1,521 | 385 | 1,903 | |
| 1,526
627
991 | 678
837
1,160 | 4
7
21 | 93 | | 8
2
1 | 30
18
29 | 1
1 | 7
1 | 2 | 7
2 | 1
1 | 23,403
8,680
7,785 | 11,276
3,574
4,095 | 30,679
12,563
11,623 | |
| 3,656
12 | 2,800
11 | 33 | 163 | 124 | 183 | 86 | 125 | 50 | 24 | 104 | 27
1 | 57,992
164 | 20,400
127 | 78,392
291 | |
| 3,688 | 2,811 | 33 | 163 | 124 | 185 | 86 | 125 | 50 | 24 | 104 | 38 | 58,157 | 20,533 | 78,690 | |

STATEMENT X — MATURED AREA FOR THE 21 YEARS, 1885-86 TO 1905-06

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|--------------------------------------------------------|-----------------|--------------|--------|--------|-------------------------------|---------|
| Assessment Circle | Year. | Cultivated area | MATURED AREA | | | Percentage on area cultivated | REMARKS |
| | | | Kharif | Rabi | Total | | |
| BAYAN. | 1885-86 | 67,136 | 46,253 | 22,139 | 68,392 | 101.9 | |
| | 1886-87 | 67,164 | 46,486 | 18,951 | 65,437 | 97.3 | |
| | 1887-88 | 66,931 | 40,822 | 21,051 | 71,873 | 107.4 | |
| | 1888-89 | 66,894 | 49,369 | 82,869 | 82,238 | 122.9 | |
| | 1889-90 | 67,298 | 48,405 | 18,565 | 66,970 | 99.5 | |
| | 1890-91 | 67,346 | 37,794 | 37,455 | 75,249 | 111.7 | |
| | Average .. | 67,125 | 44,565 | 27,778 | 72,343 | 107.7 | |
| | 1891-92 | 67,364 | 49,295 | 29,014 | 78,349 | 116.3 | |
| | 1892-93 | 67,616 | 44,428 | 36,708 | 81,136 | 120.1 | |
| | 1893-94 | 67,685 | 41,971 | 35,250 | 77,221 | 114.1 | |
| | 1894-95 | 67,579 | 46,908 | 29,304 | 76,212 | 112.0 | |
| | 1895-96 | 67,354 | 39,922 | 25,990 | 65,912 | 97.8 | |
| | Average | 67,520 | 44,385 | 31,293 | 75,678 | 112.0 | |
| | 1896-97 | 67,116 | 41,355 | 26,216 | 67,571 | 100.3 | |
| | 1897-98 | 63,392 | 47,628 | 30,543 | 78,171 | 123.3 | |
| | 1898-99 | 67,604 | 38,247 | 15,509 | 53,756 | 79.5 | |
| | 1899-00 | 67,392 | 18,054 | 13,233 | 31,287 | 46.4 | |
| | 1900-01 | 67,724 | 41,033 | 40,560 | 81,593 | 120.5 | |
| | Average | 66,706 | 37,270 | 25,211 | 62,481 | 93.6 | |
| | 1901-02 | 67,759 | 33,053 | 12,393 | 45,446 | 67.0 | |
| | 1902-03 | 67,793 | 49,004 | 23,673 | 72,677 | 107.5 | |
| | 1903-04 | 67,673 | 38,478 | 15,111 | 53,589 | 79.2 | |
| | 1904-05 | 67,357 | 47,433 | 35,740 | 83,173 | 123.5 | |
| | 1905-06 | 67,267 | 31,799 | 25,535 | 57,334 | 85.2 | |
| | Average | 67,658 | 41,951 | 22,531 | 64,482 | 95.4 | |
| | Average of 21 years | 67,223 | 42,244 | 26,458 | 68,702 | 102.2 | |
| | Average of the years selected for the Produce Estimate | 67,662 | 41,800 | 25,535 | 67,335 | 99.5 | |
| INCHAS. | 1883-84 | 35,253 | 19,978 | 14,217 | 34,195 | 96.9 | |
| | 1884-85 | 34,653 | 19,464 | 11,582 | 31,046 | 89.5 | |
| | 1885-86 | 33,725 | 13,233 | 15,982 | 29,215 | 87.6 | |
| | 1886-87 | 3,884 | 21,430 | 15,224 | 36,654 | 111.4 | |
| | 1887-88 | 33,867 | 21,497 | 9,218 | 30,715 | 90.6 | |
| | 1888-89 | 34,273 | 16,020 | 15,579 | 31,600 | 92.2 | |
| | Average | 33,875 | 18,320 | 13,617 | 31,937 | 91.2 | |
| | 1889-90 | 35,024 | 22,004 | 14,651 | 36,655 | 107.7 | |
| | 1890-91 | 36,153 | 22,000 | 17,451 | 39,451 | 107.7 | |
| | 1891-92 | 37,168 | 19,712 | 19,663 | 39,375 | 104.8 | |
| MADH. | 1892-93 | 37,273 | 20,318 | 17,000 | 37,318 | 101.9 | |
| | 1893-94 | 37,000 | 17,170 | 19,508 | 36,678 | 99.5 | |
| | 1894-95 | 37,000 | 17,170 | 19,508 | 36,678 | 99.5 | |
| | Average | 37,000 | 17,170 | 19,508 | 36,678 | 99.5 | |

STATEMENT X—continued

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|--------------------------------------------------------|-----------------|--------------|--------|--------|-------------------------------|----------|
| Assessment Circle | YEAR. | Cultivated area | MATURED AREA | | | Percentage on area cultivated | REMARKS. |
| | | | Kharif | Rabi. | Total | | |
| BUNDUK—concluded | 1896-97 | 37,271 | 20,734 | 14,542 | 35,276 | 94.6 | |
| | 1897-98 | 37,986 | 24,286 | 12,498 | 36,784 | 96.8 | |
| | 1898-99 | 38,451 | 19,564 | 8,618 | 28,182 | 73.3 | |
| | 1899-1900 | 38,576 | 18,384 | 5,843 | 19,227 | 49.8 | |
| | 1900-01 | 38,863 | 28,668 | 17,881 | 46,549 | 119.7 | |
| | Average | 38,229 | 21,323 | 11,877 | 33,200 | 86.8 | |
| | 1901-02 | 38,928 | 17,886 | 4,762 | 22,648 | 58.2 | |
| | 1902-03 | 38,892 | 27,971 | 10,123 | 38,094 | 97.9 | |
| | 1903-04 | 38,962 | 18,204 | 7,318 | 25,522 | 65.5 | |
| | 1904-05 | 38,849 | 26,729 | 16,954 | 43,683 | 112.4 | |
| | 1905-06 | 38,624 | 23,881 | 11,408 | 35,289 | 90.9 | |
| DANAR MITHA. | Average | 38,891 | 22,936 | 10,113 | 33,049 | 85.0 | |
| | Average of 21 years | 36,809 | 20,099 | 13,046 | 33,145 | 91.6 | |
| | Average of the years selected for the produce estimate | 36,699 | 23,892 | 11,408 | 35,300 | 90.7 | |
| | 1886-87 | 24,419 | 10,604 | 15,839 | 26,443 | 106.3 | |
| | 1886-87 | 24,171 | 11,332 | 13,545 | 24,877 | 102.9 | |
| | 1887-88 | 23,994 | 6,807 | 17,602 | 24,409 | 102.6 | |
| | 1888-89 | 23,956 | 12,641 | 14,512 | 27,153 | 113.3 | |
| | 1889-90 | 23,727 | 12,614 | 10,422 | 23,036 | 97.1 | |
| | 1890-91 | 24,035 | 10,821 | 13,625 | 24,446 | 102.5 | |
| | Average | 23,977 | 10,843 | 14,021 | 24,864 | 103.7 | |
| | 1891-92 | 24,642 | 14,540 | 12,425 | 26,965 | 109.9 | |
| | 1892-93 | 25,256 | 14,081 | 15,784 | 29,865 | 118.2 | |
| | 1893-94 | 25,620 | 8,135 | 20,084 | 28,219 | 110.1 | |
| | 1894-95 | 25,670 | 12,416 | 17,152 | 29,567 | 115.2 | |
| | 1895-96 | 25,891 | 8,680 | 11,066 | 19,746 | 78.8 | |
| | Average | 25,356 | 11,566 | 15,302 | 26,868 | 106.0 | |
| | 1896-97 | 25,710 | 11,806 | 13,599 | 25,405 | 98.8 | |
| | 1897-98 | 25,754 | 14,002 | 9,279 | 23,281 | 90.4 | |
| | 1898-99 | 25,736 | 11,090 | 7,214 | 18,304 | 70.9 | |
| | 1899-1900 | 25,864 | 7,009 | 5,077 | 12,086 | 46.7 | |
| | 1900-01 | 25,884 | 17,075 | 12,910 | 29,985 | 115.9 | |
| | Average | 25,602 | 12,196 | 9,616 | 21,812 | 84.5 | |
| | 1901-02 | 25,603 | 8,351 | 4,011 | 12,362 | 47.9 | |
| | 1902-03 | 25,634 | 17,223 | 7,267 | 24,490 | 94.9 | |
| | 1903-04 | 25,766 | 10,724 | 5,618 | 16,342 | 63.4 | |
| | 1904-05 | 25,512 | 17,370 | 14,451 | 31,821 | 124.7 | |
| | 1905-06 | 25,489 | 5,140 | 7,264 | 12,404 | 49.0 | |
| | Average | 25,685 | 11,762 | 7,743 | 19,504 | 75.9 | |
| | Average of 21 years | 25,177 | 11,515 | 11,663 | 23,178 | 92.0 | |
| | Average of the years selected for the produce estimate | 25,761 | 14,145 | 8,952 | 23,097 | 89.3 | |

STATEMENT X—continued

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|-----------------------------------------------------------|-----------------|-------------|--------|--------|-------------------------------|---------|
| Assessment Circle | Year | Cultivated area | MATTED AREA | | | Percentage on area cultivated | REMARKS |
| | | | Kharif | Rabi | Total | | |
| DAVAR KHARI | 1855-56 | 20,860 | 4,683 | 17,950 | 22,643 | 108.5 | |
| | 1856-57 | 20,839 | 8,650 | 11,746 | 20,396 | 97.9 | |
| | 1857-58 | 20,650 | 4,249 | 18,038 | 22,286 | 107.9 | |
| | 1858-59 | 20,565 | 11,179 | 11,952 | 23,161 | 112.6 | |
| | 1859-60 | 20,612 | 10,726 | 9,636 | 20,362 | 99.8 | |
| | 1860-61 | 20,206 | 6,703 | 13,328 | 20,031 | 99.1 | |
| | Average | 20,574 | 8,701 | 12,946 | 21,247 | 103.3 | |
| | 1891-92 | 20,714 | 11,560 | 18,226 | 24,786 | 119.7 | |
| | 1892-93 | 20,814 | 7,305 | 16,024 | 23,329 | 112.1 | |
| | 1893-94 | 20,720 | 4,224 | 18,163 | 22,387 | 109.0 | |
| | 1894-95 | 20,735 | 7,797 | 16,731 | 24,528 | 118.3 | |
| | 1895-96 | 20,741 | 5,754 | 10,432 | 16,186 | 78.0 | |
| | Average | 20,745 | 7,328 | 14,905 | 22,243 | 107.2 | |
| | 1896-97 | 20,756 | 7,635 | 18,872 | 21,507 | 103.9 | |
| | 1897-98 | 20,775 | 9,608 | 11,635 | 21,143 | 101.8 | |
| | 1898-99 | 20,937 | 7,539 | 9,002 | 16,601 | 79.7 | |
| | 1899-1900 | 20,855 | 4,116 | 4,276 | 8,392 | 40.2 | |
| | 1900-01 | 20,890 | 10,707 | 13,637 | 23,744 | 113.7 | |
| | Average | 20,822 | 7,931 | 10,356 | 18,287 | 87.8 | |
| | 1901-02 | 20,920 | 4,047 | 3,513 | 8,460 | 40.4 | |
| | 1902-03 | 20,916 | 10,606 | 10,459 | 21,065 | 100.7 | |
| | 1903-04 | 20,922 | 9,038 | 6,431 | 15,769 | 78.2 | |
| | 1904-05 | 20,918 | 12,448 | 10,373 | 22,821 | 109.1 | |
| | 1905-06 | 20,897 | 4,041 | 5,470 | 9,511 | 45.6 | |
| | Average | 20,914 | 8,796 | 7,349 | 15,645 | 74.9 | |
| | Average of 21 years | 20,769 | 7,832 | 11,069 | 19,500 | 93.9 | |
| | Average of the years selected for the purpose of estimate | 20,913 | 9,730 | 8,763 | 18,493 | 88.4 | |
| CHIZOT | 1855-56 | 11,180 | 1,574 | 5,049 | 6,783 | 67.5 | |
| | 1856-57 | 11,016 | 2,529 | 7,256 | 9,783 | 88.8 | |
| | 1857-58 | 10,759 | 1,330 | 8,263 | 9,602 | 89.2 | |
| | 1858-59 | 10,678 | 4,304 | 6,533 | 10,837 | 90.4 | |
| | 1859-60 | 11,653 | 4,834 | 5,897 | 10,677 | 91.3 | |
| | 1860-61 | 11,798 | 1,981 | 8,618 | 10,639 | 90.2 | |
| | Average | 11,225 | 2,977 | 7,203 | 10,700 | 91.8 | |
| | 1861-62 | 11,631 | 4,407 | 7,085 | 11,468 | 93.7 | |
| | 1862-63 | 11,461 | 7,049 | 8,251 | 11,300 | 98.6 | |
| | 1863-64 | 11,679 | 2,511 | 8,164 | 10,675 | 91.3 | |
| | 1864-65 | 11,661 | 2,286 | 7,769 | 10,751 | 92.1 | |
| | 1865-66 | 11,735 | 1,922 | 2,274 | 4,196 | 36.4 | |
| | Average | 11,632 | 70.4 | 6,629 | 9,667 | 83.5 | |

STATEMENT X—concluded

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------------|-----------------------------------------------------------|-----------------|--------------|----------|----------|----------------------------------|---------|
| Assessment Circle | YEAR | Cultivated area | MATURED AREA | | | Percentage on area onli
vated | REMARKS |
| | | | Kharif | Rabi | Total | | |
| | | | | | | | |
| CHIKNAT—concluded. | 1896-97 | 11,658 | 1,858 | 8,602 | 8,590 | 73.7 | |
| | 1897-98 | 12,164 | 4,583 | 5,766 | 10,349 | 85.1 | |
| | 1898-99 | 12,308 | 3,581 | 3,121 | 6,702 | 54.5 | |
| | 1899-1900 | 12,381 | 603 | 446 | 1,040 | 8.5 | |
| | 1900-1900 | 12,393 | 4,862 | 6,781 | 11,645 | 94 | |
| | Average | 12,181 | 3,123 | 4,544 | 7,667 | 62.9 | |
| | 1901-02 | 12,230 | 2,197 | 679 | 2,876 | 23.5 | |
| | 1902-03 | 11,994 | 4,666 | 2,805 | 7,471 | 62.3 | |
| | 1903-04 | 12,031 | 4,723 | 2,222 | 6,945 | 57.7 | |
| | 1904-05 | 12,134 | 6,026 | 5,509 | 11,535 | 95.1 | |
| | 1905-06 | 11,944 | 728 | 1,711 | 2,439 | 20.4 | |
| | Average | 12,067 | 3,668 | 2,585 | 6,253 | 51.8 | |
| | Average of 21 years | 11,740 | 3,100 | 5,410 | 8,550 | 72.8 | |
| | Average of the years selected for the
produce estimate | 12,156 | 4,494 | 3,599 | 8,093 | 66.6 | |
| TOTAL TANJAVUR | 1885-86 | 1,58,848 | 83,252 | 78,204 | 1,61,456 | 101.6 | |
| | 1886-87 | 1,57,873 | 88,410 | 63,079 | 1,51,489 | 96.0 | |
| | 1887-88 | 1,55,659 | 68,449 | 91,136 | 1,57,585 | 101.2 | |
| | 1888-89 | 1,55,191 | 98,923 | 81,120 | 1,80,043 | 116.0 | |
| | 1889-90 | 1,57,157 | 98,076 | 53,644 | 1,51,720 | 96.5 | |
| | 1890-91 | 1,57,652 | 73,319 | 88,645 | 1,62,164 | 102.9 | |
| | Average | 1,56,706 | 85,035 | 75,565 | 1,60,600 | 102.5 | |
| | 1891-92 | 1,58,275 | 1,02,702 | 76,641 | 1,79,343 | 112.6 | |
| | 1892-93 | 1,61,535 | 80,929 | 94,278 | 1,85,207 | 114.4 | |
| | 1893-94 | 1,82,802 | 76,153 | 1,01,324 | 1,77,477 | 109.0 | |
| | 1894-95 | 1,62,938 | 90,224 | 68,308 | 1,78,532 | 109.6 | |
| | 1895-96 | 1,82,270 | 73,423 | 82,359 | 1,35,782 | 83.7 | |
| | Average | 1,61,943 | 86,656 | 64,682 | 1,71,268 | 105.8 | |
| | 1896-97 | 1,62,810 | 83,596 | 74,831 | 1,58,429 | 97.3 | |
| | 1897-98 | 1,60,071 | 1,00,087 | 69,021 | 1,69,709 | 106.0 | |
| | 1898-99 | 1,64,986 | 80,021 | 43,521 | 1,23,542 | 74.9 | |
| | 1899-1900 | 1,65,068 | 43,166 | 28,875 | 72,041 | 43.6 | |
| | 1900-01 | 1,67,754 | 1,02,345 | 91,171 | 1,93,516 | 116.7 | |
| | Average | 1,63,740 | 81,843 | 61,004 | 1,43,447 | 87.6 | |
| | 1901-02 | 1,65,645 | 66,434 | 25,358 | 91,792 | 55.4 | |
| | 1902-03 | 1,65,431 | 1,09,470 | 54,527 | 1,63,997 | 99.1 | |
| | 1903-04 | 1,65,356 | 82,067 | 36,700 | 1,18,767 | 71.8 | |
| | 1904-05 | 1,64,770 | 1,10,006 | 83,277 | 1,93,283 | 117.1 | |
| | 1905-06 | 1,64,371 | 75,508 | 51,483 | 1,26,991 | 77.3 | |
| | Average | 1,64,115 | 88,777 | 55,227 | 1,43,995 | 87.2 | |
| | Average of 21 years | 1,61,740 | 83,100 | 54,410 | 1,37,510 | 85.2 | |
| | Average of the years selected for the
produce estimate | 1,63,211 | 94,494 | 54,157 | 1,48,651 | 91.0 | |

STATEMENT XI—CULTIVATING OCCUPANCY

| Assessment Circle | Year | Detail | AREA CULTIVATED BY TENANT-PAYING RENT | | | | | | | | | | DETAIL OF RENTS AND AREA ON WHICH PAID | | | | | | | | | | Incidence per acre of rents in columns 23 and 24 | | | |
|-------------------|-------------------------------|----------------------------|---------------------------------------------------|-------------------------|-------------------------------------------------|---------------------------------------------------------------|-------------------|----------------------------|---------------------------------------------------|-------------------------|-------------------------------------------------|-----------------------------------|----------------------------------------|-----------------------------------|-----------------|---------------------------|-----------------------|-----------------------|----------------------------|-------------------------------|-----------------------------------------------------------|-------------------------------------|--------------------------------------------------|----------------------------------------------------|--------------------------------|-------------------|
| | | | With right of occupancy | | | | | Without right of occupancy | | | | | Rent in kind | | | | | | Cash rent | | | | | | | |
| | | | Paying at revenue rates with or without malikana. | Paying other cash rents | Paying in kind with or without addition in cash | Area cultivated by tenants free of rent or at a nominal rent. | Total cultivation | Area cultivated by owners | Paying at revenue rates with or without malikana. | Paying other cash rents | Paying in kind with or without addition in cash | Total held by tenants paying rent | Detail | Zabti rent | Produce or more | Less than 1/2 | 1/2 and less than 1/2 | 1/2 and less than 1/2 | By fixed amount of produce | Total area under rent in kind | Total area paying revenue rates with or without malikana. | Total area paying other cash rents. | | Total cash rents paid on area entered in column 23 | Ra | |
| Banar | Last quinquennial attestation | Number of holdings
Area | 2,661
17,181 | 277
365 | 2,938
17,546 | 835
1,004 | 27,786
43,698 | 14,101
43,698 | 835
1,004 | 2,974
5,280 | 4,438
8,594 | 2,500
4,256 | 12,781
23,587 | Irrigated
Unirrigated
Total | . | 1,656
2,550
4,212 | 2
0
8 | 20
0
82 | 1
0
1 | 1
1
2 | 1,086
2,558
4,255 | 1,237
4,043
5,280 | 1,003
0,001
8,504 | 7,051
25,427
32,474 | 4.4
3.0
3.8 | |
| Bhader | Do | Number of holdings
Area | 2,417
4,804 | 215
468 | 2,632
5,272 | 660
884 | 17,443
30,058 | 8,048
30,278 | 660
884 | 1,659
3,277 | 3,137
7,305 | 1,317
1,042 | 8,745
17,886 | Irrigated
Unirrigated
Total | . | 1,450
1,737
1,882 | 145
1,737
1,882 | 44
10
54 | 4
10
54 | 2
2
2 | 2
2
2 | 185
1,747
1,042 | 289
2,988
3,277 | 720
6,685
7,305 | 4,041
14,984
10,025 | 5.0
2.3
2.6 |
| Dahar Mitha | Do | Number of holdings
Area | 636
1,518 | 13
20 | 649
1,538 | 383
448 | 11,040
25,541 | 4,803
12,747 | 383
448 | 706
1,217 | 3,373
7,838 | 1,033
1,708 | 5,851
12,346 | Irrigated
Unirrigated
Total | . | 243
1,424
1,678 | 243
1,424
1,678 | 28
2
30 | 28
2
30 | 2
2
2 | 2
2
2 | 272
1,436
1,708 | 105
1,022
1,217 | 1,291
8,692
7,883 | 9,507
33,051
13,157 | 7.4
5.1
5.5 |
| Dahar Khari | Do | Number of holdings
Area | 741
1,196 | | 741
1,196 | 283
289 | 12,074
20,910 | 5,948
11,106 | 283
289 | 903
1,100 | 2,640
4,456 | 2,152
2,754 | 6,442
9,506 | Irrigated
Unirrigated
Total | . | 278
2,430
2,708 | 278
2,430
2,708 | 26
7
83 | 26
7
83 | 4
8
12 | 4
8
12 | 309
2,445
2,754 | 72
1,028
1,100 | 612
3,844
4,456 | 4,206
26,729
30,937 | 0.9
7.0
0.9 |
| Chikool | Do | Number of holdings
Area | 460
808 | | 460
808 | 180
134 | 9,914
13,026 | 3,238
7,210 | 180
134 | 936
1,003 | 873
717 | 1,511
2,063 | 3,488
4,682 | Irrigated
Unirrigated
Total | . | 21
2,042
2,063 | 21
2,042
2,063 | | | | 21
2,042
2,063 | 9
1,085
1,094 | 12
705
717 | 55
2,830
2,886 | 4.0
4.0
4.0 | |
| Total Tabuli | Do | Number of holdings
Area | 9,881
13,480 | 605
873 | 10,486
14,353 | 2,341
2,770 | 75,857
148,222 | 30,205
94,030 | 2,341
2,770 | 7,181
11,068 | 14,189
28,955 | 8,549
12,722 | 37,305
68,007 | Irrigated
Unirrigated
Total | . | 9,345
10,189
13,544 | 2
6
8 | 124
25
149 | 9
8
17 | 3
1
4 | 3
1
4 | 2,483
10,166
11,008 | 1,802
10,166
11,008 | 4,238
24,717
28,955 | 24,862
1,03,620
1,28,482 | 5.9
4.3
4.4 |

STATEMENT XII—YIELD DATA.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|---------|-------------------------------------------|---------------|-----------------------|--------------------|---------------------------------|---------------------------------------------------------------|
| Circle | Crops | Soils | EXPERIMENTS | | ASSUMED YIELDS | | REMARKS |
| | | | Area in acres | Average yield in sers | At last Settlement | Now | |
| BANGALUR | Jowar | Chahi
Nahri
Dahri
Barani
Bhur | } | | 320 | 240
240
240
200
100 | Mr Channing's barani yields are for all barani including bhur |
| | Bajra | Chahi
Nahri
Dahri
Barani
Bhur | } | | 240 | 240
240
200
160
140 | |
| | Maize | Chahi
Nahri
Dahri
Barani
Bhur | } | | 400 | 320
320
200
200 | |
| | Mung | Chahi
Nahri
Dahri
Barani
Bhur | } | | 200 | 120
120
120
120 | |
| | Maash | Chahi
Nahri
Dahri
Barani
Bhur | } | | 200 | 120
120
120
120
120 | |
| | Moth | Chahi
Nahri
Dahri
Barani
Bhur | } | | 240 | 160
160
160 | |
| | Chaula, | Chahi
Nahri
Dahri
Barani
Bhur | } | | | 80
80
80 | |
| | Til | Chahi
Nahri
Dahri
Barani
Bhur | } | | 200 | 140
140
140
140 | |
| | Cano | Nahri | | | | 640 | |
| | Cotton | Chahi
Nahri
Dahri
Barani
Bhur | 32
11 | 184
347 | 160 | 200
160
260
160
100 | |
| | Wheat | Chahi
Nahri
Dahri
Barani
Bhur | 24 | 301 | 520
400
260 | 400
320
360
240
200 | |
| | Barley | Chahi
Nahri
Dahri
Barani
Bhur | 23
43 | 867
598 | 600
440
320 | 450
400
400
300
240 | |
| | Gram | Chahi
Nahri
Dahri
Barani
Bhur | 3
32 | 367
504 | 320 | 320
280
320
260
100 | |
| | Gochni | Chahi
Nahri
Dahri
Barani
Bhur | } | | 320 | 100
320
200
250
200 | |

STATEMENT XII—continued.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------|----------|-------------------------------------------|---------------|-----------------------|--------------------|---------------------------------|---------|
| Circle | Crops | Soils | EXPERIMENTS | | ASSUMED YIELDS | | REMARKS |
| | | | Area in acres | Average yield in acre | At last settlement | Now | |
| BAYAN—conold | Sarron | Chahi
Nahri
Dahri
Barani
Bhur | 20 | 508 | 200 | 210
200
200
100
100 | |
| | Taramira | Chahi
Nahri
Dahri
Barani
Bhur | | | 210 | 220
100
100 | |
| BUDER | Jowar | Chahi
Abi and Dahri
Barani
Bhur | 13 | 92 | 210 | 220
200
200
100 | |
| | Bayra | Chahi
Abi and Dahri
Barani
Bhur | 6 | 107 | 240 | 240
210
100
140 | |
| | Maiso | Chahi
Abi and Dahri
Barani
Bhur | | | | 200
200
210
200 | |
| | Mung | Chahi
Abi and Dahri
Barani
Bhur | | | 200 | 120
120
120 | |
| | Mash | Chahi
Abi and Dahri
Barani
Bhur | | | | 120
120
120 | |
| | Moth | Chahi
Abi and Dahri
Barani
Bhur | | | 210 | 160
160
160
160 | |
| | Chaula | Chahi
Abi and Dahri
Barani
Bhur | | | | 80
80 | |
| | Til | Chahi
Abi and Dahri
Barani
Bhur | | | 200 | 140
140
140
110 | |
| | Cotton | Chahi
Abi and Dahri
Barani
Bhur | | | 140 | 200
200
160
100 | |
| | Wheat | Chahi
Abi and Dahri
Barani
Bhur | | | 520
440
260 | 450
400
240
200 | |
| | Barley | Chahi
Abi and Dahri
Barani
Bhur | 92
11 | 682
386 | 600
480
280 | 600
440
300
240 | |
| | Gram | Chahi
Abi and Dahri
Barani
Bhur | 17 | 280 | 320 | 220
300
280
200 | |
| | Gochni | Chahi
Abi and Dahri
Barani
Bhur | | | 320 | 440
360
280
200 | |
| | Sarron | Chahi
Abi and Dahri
Barani
Bhur | 14 | 178 | 200 | 200
200
160
160 | |

STATEMENT XII—continued.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------|---------|---------------|---------------|------------------------|--------------------|-----|----------|
| Circle | Crops | Soils. | EXPERIMENTS | | ASSUMED YIELDS | | REMARKS. |
| | | | Area in acres | Average yield in sera. | At last Settlement | Now | |
| BUNAG-
conold | Turamir | Chahi | 13 | 180 | 240 | 200 | |
| | | Abi and Dahri | | | | 200 | |
| | Jowar. | Barani | | | | 160 | |
| | | Bhur | | | | 160 | |
| | Bajra. | Chahi | 65 | 173 | 320 | 280 | |
| | | Dahri | | | | 280 | |
| | Maize | Narmot | | | | 260 | |
| | | Bhur | | | | 140 | |
| | Mung. | Chahi | 22 | 359 | 240 | 240 | |
| | | Dahri | | | | 240 | |
| | Munb. | Narmot | | | | 220 | |
| | | Bhur | | | | 200 | |
| | Moth | Chahi | } | } | 400 | 320 | |
| | | Dahri | | | | 320 | |
| | Chaula | Narmot | | | | 240 | |
| | | Bhur | | | | 240 | |
| | Til. | Chahi | 15 | 180 | 200 | 120 | |
| | | Dahri | | | | 120 | |
| | Cotton | Narmot | | | | 120 | |
| | | Bhur | | | | 140 | |
| | Wheat | Chahi | 33 | 252 | 200 | 240 | |
| | | Dahri | | | | 240 | |
| | Barley. | Narmot | | | | 240 | |
| | | Bhur | | | | 120 | |
| | Gram. | Chahi | 11 | 409 | 600 | 560 | |
| | | Dahri | | | | 450 | |
| | Ochnl. | Narmot | | | | 320 | |
| | | Bhur | | | | 200 | |
| | Rason | Chahi | 13 | 180 | 220 | 200 | |
| | | Dahri | | | | 200 | |
| | Turamir | Narmot | | | | 160 | |
| | | Bhur | | | | 160 | |

STATEMENT XII—continued

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------|----------|------------------------------------------|---------------|-----------------------|--------------------|-------------------------------------------|---------|
| Circle | Crops | Soils | EXPERIMENTS | | ASSUMED YIELDS | | REMARKS |
| | | | Area in Acres | Average yield in sers | At last Settlement | Now | |
| DAUAR KHUR | Jowar | Chahi
Abi and Dahri
Barani
Bhur | 2 1 | 200 | 320 | 360
320
280
200 | |
| | Bajra | Chahi
Abi and Dahri
Barani
Bhur | } | | 240 | 240
240
200 | |
| | Maize | Chahi
Abi and Dahri
Barani
Bhur | } | | 400 | 240
200 | |
| | Mung | Chahi
Abi and Dahri
Barani
Bhur | } | | 200 | 160
160
160 | |
| | Maash | Chahi
Abi and Dahri
Barani
Bhur | } | | 260 | 160
160
160 | |
| | Moth | Chahi
Abi and Dahri
Barani
Bhur | } | | 240 | 200
200
200 | |
| | Chaula | Chahi
Abi and Dahri
Barani
Bhur | } | | | 120
120 | |
| | Til | Chahi
Abi and Dahri
Barani
Bhur | } | | | 140
140 | |
| | Cotton | Chahi
Abi and Dahri
Barani
Bhur | 1 | 209 | 200 | 260
240
220
140 | |
| | Wheat | Chahi
Abi and Dahri
Barani
Bhur | 1 1 | 302 | 600
400
320 | 520
400
320
240 | |
| | Barley | Chahi
Abi and Dahri
Barani
Bhur | 4 3 | 583 | 680
440
360 | 640
480
400
280 | |
| | Gram | Chahi
Abi and Dahri
Barani
Bhur | 1 3 | 404 | 400 | 480
440
400
240 | |
| | Gechni | Chahi
Abi and Dahri
Barani
Bhur | 2 6
1 | 432
448 | 400 | 520
Abi 440
Dahri 380
360
240 | |
| | Sarson | Chahi
Abi and Dahri
Barani
Bhur | 2 | 188 | 200 | 200
200
160
160 | |
| | Taramira | Chahi
Abi and Dahri
Barani
Bhur | } | | 240 | 200
160
160 | |
| CHIKYOT | Jowar | Chahi
Abi and Dahri
Barani
Bhur | } | | 320 | 280
240
160 | |

STATEMENT XII—concluded.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|----------|------------------------------------------|----------------|-----------------------|---------------------|--------------------------|---------|
| Circle | Crops | Soils | EXPERIMENTS | | ASSUMED YIELDS | | REMARKS |
| | | | Area in Acres. | Average yield in sars | At last Settlement. | Now. | |
| CHIKNOR—concluded | Bajra | Chahi
Abi and Dahri
Barani
Bhur | } | | 160 | 240
180
160 | |
| | Maize | Chahi
Abi and Dahri
Barani
Bhur | } | | 400 | 200 | |
| | Mung | Chahi
Abi and Dahri
Barani
Bhur | } | | | 160
120
120 | |
| | Mush | Chahi
Abi and Dahri
Barani
Bhur | } | | | 120 | |
| | Moth | Chahi
Abi and Dahri
Barani
Bhur | } | | 240 | 160
160 | |
| | Chanla | Chahi
Abi and Dahri
Barani
Bhur | } | | 180 | 80
80 | |
| | Til | Chahi
Abi and Dahri
Barani
Bhur | } | | 200 | 140
140 | |
| | Cotton | Chahi
Abi and Dahri
Barani
Bhur | 8 | 309 | 160 | 200
140
100 | |
| | Wheat | Chahi
Abi and Dahri
Barani
Bhur | | | 600
400
280 | 320
380
280
200 | |
| | Barley | Chahi
Abi and Dahri
Barani
Bhur | 14 | 514 | 600
440
320 | 400
360
280
240 | |
| | Gram | Chahi
Abi and Dahri
Barani
Bhur | | | 320 | 320
240
200 | |
| | Gochni | Chahi
Abi and Dahri
Barani
Bhur | | | 320 | 360
280
200 | |
| | Sarson. | Chahi
Abi and Dahri
Barani
Bhur | | | 200 | 200
160
160 | |
| | Taramira | Chahi
Abi and Dahri
Barani
Bhur | | | 200 | 160
160 | |

| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-------------------------------------------|-----------|-----------|--------|----------------|---------|--------|---------|-------|--------|--------------|---------|-----------|-----------|--------------|----|
| | Kharif | | | | | | | | | | | | | | |
| DETAIL | Jowar | Bajra | Maize | Other cereals. | Mung | Masur | Moth | Guar | Chaula | Other pulses | Til | Sugarcane | Cotton | Indigo | |
| 1. Average area in acres | 6 | 1 | 6 | 2 | | 1 | | | | | 1 | | | 41 | |
| 2. Yield per acre in sers or cash value | 240 | 240 | 320 | Rs. 10 | | 120 | | | | | 140 | | | 200 | |
| 3. Total yield in sers | 1,440 | 240 | 1,920 | | | 120 | | | | | 140 | | | 8,200 | |
| 4. Price in annas per maund | 20 | 23 | 22 | | | 32 | | | | | 60 | | | 64 | |
| 5. Value of grain | 45 | 9 | 66 | 20 | | 6 | | | | | 18 | | | 820 | |
| 6. Value of straw | 20 | 2 | | | | | | | | | 13 | | | 820 | |
| 7. Value of gross produce | 65 | 11 | 66 | 20 | | 6 | | | | | 31 | | | 1,23 | |
| 8. Government share at 16½ per cent. | 17 | 2 | 11 | 3 | | 1 | | | | | 2 | | | 3 | |
| 9. Rate per acre harvested | 12.8 | 2 | 13.4 | 18.0 | | 1 | | | | | 2 | | | | |
| 1. Average area in acres | 67 | 19 | 135 | 107 | 3 | 49 | 42 | 25 | 5 | 4 | 17 | 627 | 2,663 | 124 | |
| 2. Yield per acre in sers or cash value | 246 | 240 | 320 | Rs. 10 | 120 | 120 | 160 | Rs. 3 | 80 | Re 1 | 140 | 640 | 160 | Rs. 10 | |
| 3. Total yield in sers | 16,080 | 4,560 | 43,200 | | 360 | 5,880 | 6,720 | | 400 | | 1,820 | 401,280 | 429,280 | | |
| 4. Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | 20 | | 60 | 45 | 64 | | |
| 5. Value of grain | 502 | 164 | 1,485 | 1,070 | 17 | 294 | 231 | 75 | 12 | 40 | 171 | 28,215 | 42,928 | 1,240 | |
| 6. Value of straw | 226 | 28 | | | 1 | 18 | 21 | | 1 | | 171 | 28,215 | 42,928 | 1,240 | |
| 7. Value of gross produce | 728 | 192 | 1,485 | 1,070 | 18 | 312 | 252 | 75 | 13 | 40 | 171 | 28,215 | 42,928 | 1,240 | |
| 8. Rate per acre of the Government share. | 10 14-0 | 1 7-0 | 2 | 18.0 | 10-13.0 | 10-4-0 | 0 3-0 | * | + | 10-4.0 | 2-6-0 | 12.0-0 | 12.10.0 | 1 12.0 | |
| 9. Total value of Government share | 759 | 27 | 270 | 160 | 11 | 112 | 8 | * | + | 11 | 32 | 11,607 | 17,033 | 217 | |
| 1. Average area in acres | 91 | 21 | | | 1 | 1 | | 1 | | | 6 | | 25 | | |
| 2. Yield per acre in sers or cash value | 240 | 200 | | | 120 | 120 | | Re 3 | | | 140 | | 200 | | |
| 3. Total yield in sers | 21,840 | 4,200 | | | 120 | 120 | | | | | 840 | | 5,000 | | |
| 4. Price in annas per maund | 20 | 23 | | | 30 | 32 | | | | | 60 | | 64 | | |
| 5. Value of grain | 682 | 151 | | | 6 | 6 | | 8 | | | 79 | | 500 | | |
| 6. Value of straw | 307 | 26 | | | | | | 3 | | | 79 | | 500 | | |
| 7. Value of gross produce | 989 | 177 | | | 6 | 6 | | * | | | 79 | | 1,112 | | |
| 8. Government share at 25 per cent | 1149 | 38 | | | 11 | 11 | | * | | | 20 | | 1,112 | | |
| 9. Rate per acre harvested | 1-10.2 | 1 13.0 | | | 1 | 1 | | | | | 3 5-4 | | 4-7.8 | | |
| 1. Average area in acres | 6,882 | 16,074 | 183 | 196 | 783 | 256 | 192 | 2 306 | 38 | 1 | 723 | | 3,913 | | |
| 2. Yield per acre in sers or cash value | 200 | 160 | 200 | Re 10 | 120 | 120 | 160 | Rs. 8 | 80 | Rs. 10 | 140 | | 160 | | |
| 3. Total yield in sers | 1,366,400 | 2,571,840 | 26,800 | | 93,960 | 30,720 | 30,720 | | 3,040 | | 101,220 | | 626,080 | | |
| 4. Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | 20 | | 60 | | 64 | | |
| 5. Value of grain | 42,700 | 92,425 | 914 | 1,960 | 4,404 | 1,536 | 1,056 | 6,918 | 95 | 10 | 9,489 | | 62,608 | | |
| 6. Value of straw | 18,215 | 16,074 | | | 234 | 96 | 96 | | 9 | | 79 | | 500 | | |
| 7. Value of gross produce | 61,915 | 108,499 | 914 | 1,960 | 4,638 | 1,632 | 1,152 | 6,918 | 104 | 10 | 9,489 | | 62,608 | | |
| 8. Government share at 25 per cent | 19,340 | 23,106 | 228 | 490 | 1,734 | 1,256 | 176 | * | 116 | 12 | 2,372 | | 1,108 | | |
| 9. Rate per acre harvested | 1 5-10 | 1-6.11 | 1-11.5 | 2-8.0 | 0 15.0 | 1 | 0 14-8 | | 0 6.2 | 2 | 3 4-6 | | 3-9.7 | | |
| 1. Average area in acres | 49 | 2,207 | 3 | 2 | 58 | 1 | 41 | 306 | 25 | | 16 | | 95 | | |
| 2. Yield per acre in sers or cash value | 100 | 140 | 200 | Rs. 10 | 120 | 120 | 160 | Rs. 3 | 80 | | 140 | | 100 | | |
| 3. Total yield in sers | 4,900 | 308,980 | 600 | | 6,960 | 120 | 6,560 | | 2,000 | | 2,240 | | 9,500 | | |
| 4. Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | 20 | | 60 | | 64 | | |
| 5. Value of grain | 153 | 11,104 | 21 | 20 | 326 | 6 | 225 | 1,098 | 63 | | 210 | | 950 | | |
| 6. Value of straw | 69 | 1,031 | | | 22 | | 20 | | 6 | | 210 | | 950 | | |
| 7. Value of gross produce | 222 | 18,035 | 21 | 20 | 348 | 6 | 245 | 1,098 | 69 | | 210 | | 1,214 | | |
| 8. Government share at 25 per cent. | 133 | 2,776 | 5 | 5 | 164 | 1 | 137 | * | 11 | | 52 | | 241 | | |
| 9. Rate per acre harvested | 0 10-9 | 1-4.1 | 1 10.8 | 2-8.0 | 0-14.11 | 1 | 0 14-5 | | 0 7.0 | | 3-4-0 | | 2-4-1 | | |
| 1. Average area in acres | 7,045 | 18,322 | 277 | 307 | 845 | 308 | 275 | 2,698 | 68 | 5 | 759 | | 6,757 | 124 | |
| 2. Total yield in sers | 1,410,660 | 2,889,820 | 72,820 | | 101,400 | 36,960 | 44,000 | | 5,440 | | 106,260 | | 1,078,080 | | |
| 3. Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | 20 | | 60 | | 64 | | |
| 4. Value of grain | 44,082 | 103,853 | 2,488 | 3,070 | 4,753 | 1,848 | 1,512 | 8,094 | 170 | 50 | 9,982 | | 107,806 | 1,240 | |
| 5. Value of straw | 19,837 | 18,081 | | | 317 | 114 | 137 | | 16 | | 210 | | 950 | | |
| 6. Value of gross produce | 63,919 | 121,934 | 2,486 | 3,070 | 5,070 | 1,962 | 1,649 | 8,094 | 186 | 50 | 9,982 | | 107,806 | 1,240 | |
| 7. Total value of Government share | 19,588 | 25,949 | 514 | 655 | 1,790 | 1,271 | 1,221 | * | 127 | 13 | 2,478 | | 1,167 | 217 | |
| 8. Rate per acre harvested | 1 5-9 | 1 6-8 | 1-13.8 | 2-2.3 | 0-15-0 | 0 14-1 | 0-12-10 | | 0 6-4 | 0 9.7 | 3-4-3 | | 2-9-0 | 3-3.1 1 12.0 | |

* Whole produce deducted
† Value of the Government

[illegible]

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
|---------------------|----------------------------------------|----------|-----------|--------|---------------|---------|-------|--------|-------|---------|--------|--------|----------|--|
| Soils. | DETAIL | KHARIF | | | | | | | | | | | | |
| | | Jowár | Bájrā | Maize | Other cereals | Máng | Mááh | Moth | Guar | Chaula. | Til | Cotton | Fodder | |
| CHANNI | 1 Average area in acres | 3 | 1 | 1 | 1 | | | 4 | | | 1 | 97 | 8 | |
| | 2 Yield per acre in sers or cash value | 280 | 240 | 320 | Rs 10 | | | 180 | | | 140 | 200 | Rs 10 | |
| | 3 Total yield in sers | 840 | 240 | 320 | | | | 640 | | | 140 | 10,400 | | |
| | 4 Price in annas per maund | 20 | 23 | 22 | | | | 22 | | | 60 | 64 | | |
| | 5 Value of grain | 26 | 9 | 11 | 10 | | | 22 | | | 13 | 1,940 | 80 | |
| | 6 Value of straw | 12 | 2 | | | | | 2 | | | | | | |
| | 7 Value of gross produce | 38 | 11 | 11 | 10 | | | 24 | | | 13 | 1,940 | 80 | |
| | 8 Government share at 16 2/3 per cent | †4 | 2 | 2 | 2 | | | †3 | | | 2 | †291 | | |
| | 9 Rate per acre harvested | 1-5 4 | 2 0 0 | 2 0 0 | 2 0 0 | | | 0 12 0 | | | 2 0 0 | 3 0 0 | | |
| AMR | 1 Average area in acres | | 15 | | 1 | 1 | | 1 | 1 | | | 3 | 3 | |
| | 2 Yield per acre in sers or cash value | | 240 | | Rs 10 | 120 | | 160 | Rs 3 | | | 200 | Rs 10 | |
| | 3 Total yield in sers | | 3,600 | | | 120 | | 160 | | | | 800 | | |
| | 4 Price in annas per maund | | 23 | | | 30 | | 22 | | | | 64 | | |
| | 5 Value of grain | | 129 | | 10 | 6 | | 6 | 3 | | | 60 | 30 | |
| | 6 Value of straw | | 22 | | | | | | | | | 60 | 30 | |
| | 7 Value of gross produce | | 151 | | 10 | 6 | | 6 | 3 | | | †13 | | |
| | 8 Government share at 25 per cent | | 32 | | 2 | †1 | | †1 | * | | | †13 | | |
| | 9 Rate per acre harvested | | 2-2 2 | | 2 0 0 | 1 0 0 | | 1 0 0 | | | | 4 5 4 | | |
| DAHRI | 1 Average area in acres | 65 | 96 | 2 | 9 | 9 | 1 | 3 | 17 | | 8 | 41 | 37 | |
| | 2 Yield per acre in sers or cash value | 280 | 240 | 320 | Rs 10 | 120 | 120 | 160 | Rs 3 | | 140 | 200 | Rs 10 | |
| | 3 Total yield in sers | 18,200 | 23,040 | 640 | | 1,080 | 120 | 480 | | | 1,120 | 8,200 | | |
| | 4 Price in annas per maund | 20 | 23 | | | 30 | 32 | 22 | | | 80 | 64 | | |
| | 5 Value of grain | 569 | 828 | 22 | 90 | 51 | 6 | 16 | 51 | | 105 | 820 | 370 | |
| | 6 Value of straw | 256 | 144 | | | 3 | | 2 | | | | | | |
| | 7 Value of gross produce | 825 | 972 | 22 | 90 | 54 | 6 | 18 | 51 | | 105 | 820 | 370 | |
| | 8 Government share at 25 per cent | †121 | 207 | 5 | 22 | †8 | †1 | †3 | * | | 26 | †184 | | |
| | 9 Rate per acre harvested | 1 13-0 | 2 2 0 | 3-8 0 | 2 7 1 | 0 14-3 | 1 0 0 | 1 0 0 | | | 3-4 0 | 4-7 10 | | |
| BARANI | 1 Average area in acres | 825 | 3,131 | 32 | 44 | 259 | 29 | 97 | 635 | | 99 | 853 | 638 | |
| | 2 Yield per acre in sers or cash value | 200 | 160 | 240 | Rs 10 | 120 | 120 | 160 | Rs 3 | | 140 | 160 | Rs 10 | |
| | 3 Total yield in sers | 1,65,000 | 5,00,960 | 7,690 | | 31,080 | 3,480 | 15,520 | | | 6,400 | 13,880 | 1,36,480 | |
| | 4 Price in annas per maund | 20 | 23 | | | 30 | 32 | 22 | | | 20 | 60 | | |
| | 5 Value of grain | 5,156 | 18,007 | 284 | 440 | 1,457 | 174 | 533 | 1,905 | | 200 | 1,298 | 13,648 | |
| | 6 Value of straw | 2,320 | 3,131 | | | 97 | 11 | 48 | | | 20 | | | |
| | 7 Value of gross produce | 7,476 | 21,134 | 264 | 440 | 1,554 | 185 | 581 | 1,905 | | 220 | 1,298 | 13,648 | |
| | 8 Government share at 25 per cent | †1,096 | 4,501 | 66 | 110 | †243 | †29 | †89 | * | | †33 | 324 | †3,071 | |
| | 9 Rate per acre harvested | 1 5 3 | 1 7 0 | 2 0 0 | 2 8 0 | 0 15 0 | 1 0 0 | 0 14-8 | | | 0-6 7 | 3-4 4 | 3 9-7 | |
| BUDR | 1 Average area in acres | 285 | 10,493 | 2 | 15 | 832 | 13 | 485 | 2,588 | | 756 | 47 | 368 | |
| | 2 Yield per acre in sers or cash value | 100 | 140 | 200 | Rs 10 | 120 | 120 | 160 | Rs 3 | | 80 | 140 | Rs 10 | |
| | 3 Total yield in sers | 28,500 | 1,469,020 | 400 | | 98,840 | 1,560 | 77,800 | | | 60,480 | 6,580 | 71,100 | |
| | 4 Price in annas per maund | 20 | 23 | | | 30 | 32 | 22 | | | 20 | 60 | | |
| | 5 Value of grain | 891 | 52,702 | 14 | 150 | 4,880 | 78 | 2,668 | 7,704 | | 1,800 | 617 | 7,110 | |
| | 6 Value of straw | 400 | 9,161 | | | 312 | 6 | 242 | | | 189 | | | |
| | 7 Value of gross produce | 1,291 | 61,973 | 14 | 150 | 4,992 | 83 | 2,910 | 7,704 | | 2,079 | 617 | 7,110 | |
| | 8 Government share at 25 per cent | †169 | 13,198 | 3 | 37 | †780 | †13 | †445 | * | | †315 | 154 | †1,600 | |
| | 9 Rate per acre harvested | 0-8-11 | 1-4-1 | 1 8 0 | 2 7 6 | 0 15-0 | 1-0 0 | 0 14 8 | | | 0-6 8 | 3-4 5 | 2-4 0 | |
| TOTAL OF THE CIRCLE | 1 Average area in acres | 1,178 | 13,736 | 37 | 70 | 1,101 | 43 | 590 | 3,241 | | 838 | 155 | 1,705 | |
| | 2 Yield per acre in sers or cash value | 212 540 | 1,906,880 | 9,040 | | 132 120 | 5,160 | 94 400 | | | 21,700 | 2,031 | 23,578 | |
| | 3 Total yield in sers | 6,642 | 71,761 | 311 | 700 | 6,194 | 258 | 3,245 | 9,723 | | 2,080 | 209 | 23,578 | |
| | 4 Price in annas per maund | 20 | 23 | | | 30 | 32 | 22 | | | 20 | 60 | | |
| | 5 Value of grain | 2,954 | 12,480 | | | 412 | 16 | 294 | | | 229 | | | |
| | 6 Value of straw | 9,630 | 84,211 | 311 | 706 | 6,606 | 274 | 3,530 | 9,723 | | 2,289 | 2,033 | 23,578 | |
| | 7 Value of gross produce | †1,380 | 17,940 | 78 | 173 | †1,032 | †43 | †541 | * | | †348 | 506 | †5,159 | |
| | 8 Total value of Government share | | | | | | | | | | | | | |
| | 9 Rate per acre harvested | 1 2 0 | 1-4 11 | 2 0 10 | 2 7 6 | 3-15 0 | 1-0 0 | 0 14-8 | | | 0-6 8 | 3-4 3 | 3-0 5 | |

* Whole produce deducted
† Value of the Government

[illegible]

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---------------------|----------------------------------------|---------|---------|--------|---------------|---------|--------|--------|-------|--------|--------|---------|--------|
| Soil | DETAIL | KHARIF | | | | | | | | | | | |
| | | Jowar | Bajra | Maize | Other cereals | Mung | Mash | Moth. | Guar | Chand. | Til | Cotton | Fodder |
| CHAND. | 1 Average area in acres | 3 | 2 | 11 | 2 | | | | 1 | | 4 | 80 | 16 |
| | 2 Yield per acre in sars or cash value | 280 | 240 | 320 | Rs 10 | | | | Re 3 | | 140 | 240 | Rs 10 |
| | 3 Total yield in sars | 840 | 480 | 3,520 | | | | | | | 560 | 19,200 | |
| | 4 Price in annas per maund | 20 | 28 | 22 | | | | | | | 60 | 64 | |
| | 5 Value of grain | 26 | 17 | 121 | 20 | | | | 3 | | 52 | 1,920 | 160 |
| | 6 Value of straw | 12 | 8 | | | | | | | | | | |
| | 7 Value of gross produce | 38 | 20 | 121 | 20 | | | | 3 | | 52 | 1,920 | 160 |
| | 8 Government share at 16½ per cent | †4 | 3 | 20 | 3 | | | | * | | 0 | †288 | * |
| | 9 Rate per acre harvested | 1 5-4 | 1-8-0 | 1 13 1 | 1 8 0 | | | | | | 2-4-0 | 3 9 7 | |
| -DAHRI | 1 Average area in acres | 93 | 332 | 1 | 2 | 25 | 3 | 7 | 21 | 2 | 32 | 173 | 86 |
| | 2 Yield per acre in sars or cash value | 280 | 240 | 320 | Rs 10 | 160 | 160 | 200 | Re 3 | 120 | 140 | 240 | Rs. 10 |
| | 3 Total yield in sars | 26,040 | 79,680 | 320 | | 4,000 | 480 | 1,400 | | 240 | 4,480 | 41,520 | |
| | 4 Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | 20 | 60 | 64 | |
| | 5 Value of grain | 814 | 2,863 | 11 | 20 | 188 | 24 | 48 | 63 | 8 | 420 | 4,152 | 360 |
| | 6 Value of straw | 308 | 498 | | | 12 | 2 | 4 | | 1 | | | |
| | 7 Value of gross produce | 1,180 | 3,381 | 11 | 20 | 200 | 26 | 52 | 63 | 9 | 420 | 4,152 | 360 |
| | 8 Government share at 25 per cent. | †178 | 716 | 3 | 5 | †81 | †4 | †8 | * | †1 | 105 | †934 | * |
| | 9 Rate per acre harvested | 1 14-7 | 2 2 0 | 3 0-0 | 2 8 0 | 1 3 10 | 1 5 4 | 1 2-3 | | 0 8-0 | 3 4 6 | 5-6-5 | |
| BARANI | 1 Average area in acres | 2,323 | 3 634 | 21 | 71 | 548 | 89 | 173 | 649 | 48 | 476 | 1,176 | 712 |
| | 2 Yield per acre in sars or cash value | 260 | 220 | 240 | Rs 10 | 160 | 160 | 200 | Rs 3 | 120 | 140 | 200 | Rs 10 |
| | 3 Total yield in sars | 603,980 | 799,480 | 5 040 | | 87,680 | 14,240 | 34,600 | | 5,760 | 66,640 | 235,200 | |
| | 4 Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | 20 | 60 | 64 | |
| | 5 Value of grain | 18,874 | 28,731 | 173 | 710 | 4,110 | 712 | 1,189 | 1,947 | 180 | 6,248 | 23,520 | 7,120 |
| | 6 Value of straw | 8,493 | 4,997 | | | 274 | 44 | 108 | | 18 | | | |
| | 7 Value of gross produce | 27,367 | 33 728 | 173 | 710 | 4 884 | 756 | 1,297 | 1,947 | 196 | 6,248 | 23,520 | 7,120 |
| | 8 Government share at 25 per cent | †4,129 | 7,183 | 43 | 178 | †685 | †119 | †198 | * | †30 | 1,562 | †5 296 | * |
| | 9 Rate per acre harvested | 1 12-5 | 1 15 8 | 2 0-0 | 2 8 1 | 1 4 0 | 1 5-5 | 1 2 4 | | 0 10 0 | 3-4 6 | 4-8 1 | |
| BAHUR | 1 Average area in acres | 94 | 2 077 | | 17 | 175 | 2 | 118 | 377 | 32 | 25 | 235 | 50 |
| | 2 Yield per acre in sars or cash value | 140 | 200 | | Rs 10 | 160 | 160 | 200 | Rs 3 | 120 | 140 | 120 | Rs. 10 |
| | 3 Total yield in sars | 18,160 | 419,400 | | | 28,000 | 320 | 23,600 | | 9,840 | 3,500 | 28,200 | |
| | 4 Price in annas per maund | 20 | 23 | | | 30 | 32 | 22 | | 20 | 60 | 64 | |
| | 5 Value of grain | 411 | 15,072 | | 170 | 1,312 | 16 | 811 | 1,181 | 308 | 328 | 2,820 | 500 |
| | 6 Value of straw | 185 | 2,621 | | | 88 | 1 | 74 | | 31 | | | |
| | 7 Value of gross produce | 596 | 17,693 | | 170 | 1,400 | 17 | 885 | 1,181 | 339 | 328 | 2,820 | 500 |
| | 8 Government share at 25 per cent | †90 | 3,708 | | 42 | †219 | †3 | †185 | * | †51 | 82 | †635 | * |
| | 9 Rate per acre harvested | 0-15-4 | 1 12 9 | | 2 8 1 | 1-4-0 | 1 8 0 | 1 2 4 | | 0-9-11 | 3-4 6 | 2-11 8 | |
| TOTAL OF THE CIRCLE | 1 Average area in acres | 2 518 | 6,065 | 33 | 92 | 748 | 94 | 298 | 1,048 | 182 | 587 | 1,664 | 814 |
| | 3 Total yield in sars | 644,020 | 299,040 | 8,830 | | 119,680 | 15,040 | 59,600 | | 15,840 | 75,180 | 324,120 | |
| | 5 Value of grain | 20,125 | 46,683 | 305 | 920 | 5,610 | 752 | 2,048 | 3,144 | 496 | 7,048 | 32,412 | 8,140 |
| | 6 Value of straw | 9,056 | 8,119 | | | 374 | 47 | 186 | | 50 | | | |
| | 7 Value of gross produce | 29,181 | 54,802 | 305 | 920 | 5,984 | 799 | 2,234 | 3,144 | 546 | 7,048 | 32,412 | 8,140 |
| | 8 Total value of Government share | †4 401 | 11,670 | 68 | 223 | †935 | †126 | †841 | * | †82 | 1,758 | †7,153 | * |
| | 9 Rate per acre harvested | 1 12-0 | 1-14-0 | 2-0-0 | 2 7-5 | 1 4-0 | 1-5 5 | 1-2 4 | | 0 9-11 | 3 4-5 | 4-4 9 | |

* Whole produce deducted
† Value of the Government

| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|---------|--------|---------|-----------|---------|---------|---------|--------|---------|----------|---------|--------|--------|-----------|
| RABI | | | | | | | | | | | | | |
| Gardens | Others | Wheat | Barley | Gojra | Gram | Goohni | Pulses | Sarson | Taramira | Gardens | Fodder | Others | Total |
| 16 | 26 | 285 | 976 | 59 | 5 | 4 | 30 | 78 | 4 | 30 | 24 | 99 | 1,755 |
| Rs. 25 | Rs. 20 | 560 | 680 | 620 | 400 | 480 | Rs. 15 | 200 | 200 | Rs. 25 | Rs. 10 | Rs. 20 | |
| | | 159,600 | 663,880 | 36,550 | 2,000 | 1,920 | | 15,800 | 800 | | | | 904,780 |
| | | 32 | 22 | 27 | 23 | 28 | | 45 | 32 | | | | |
| 400 | 520 | 7,980 | 32,814 | 1,543 | 72 | 84 | 450 | 1,097 | 40 | 750 | 240 | 1,980 | 40,289 |
| | | 835 | 3,111 | 170 | 6 | 8 | | | | | | | 4,246 |
| 400 | 520 | 8,915 | 25,925 | 1,713 | 78 | 93 | 450 | 1,097 | 40 | 750 | 240 | 1,980 | 44,535 |
| 67 | 87 | 1,330 | 7,612 | 257 | 71 | 14 | 750 | 791 | 7 | 125 | * | 380 | 6,308 |
| 4-3-0 | 3-5-6 | 4-10-8 | 3-11-3 | 4-5-8 | 2-3-2 | 3-8-0 | 1-10-8 | 1-2-8 | 1-12-0 | 4-2-8 | | 3-5-4 | 3-9-5 |
| 1 | 3 | 120 | 272 | 57 | 101 | 179 | 10 | 18 | 84 | 2 | | 1 | 1,570 |
| Rs. 15 | Rs. 10 | 440 | 480 | 460 | 400 | 440 | Rs. 15 | 200 | 200 | Rs. 15 | | Rs. 15 | |
| | | 52,800 | 130,560 | 26,220 | 40,400 | 78,760 | | 2,600 | 16,800 | | | | 508,300 |
| | | 32 | 22 | 27 | 23 | 28 | | 45 | 32 | | | | |
| 15 | 30 | 2,640 | 4,488 | 1,106 | 1,452 | 3,446 | 150 | 183 | 840 | 30 | | 15 | 23,866 |
| | | 309 | 612 | 123 | 126 | 369 | | | | | | | 2,422 |
| 15 | 30 | 2,949 | 5,100 | 1,229 | 1,578 | 3,615 | 150 | 183 | 840 | 30 | | 15 | 25,788 |
| 4 | 8 | 660 | 7,066 | 276 | 7345 | 862 | 725 | 728 | 210 | 8 | | 4 | 5,476 |
| 4-0-0 | 2-10-8 | 5-8-0 | 3-14-0 | 4-13-6 | 3-6-8 | 4-13-1 | 2-4-1 | 1-12-4 | 2-5-0 | 4-0-0 | | 4-0-0 | 3-7-10 |
| 8 | 45 | 316 | 1,771 | 266 | 1,326 | 407 | 24 | 430 | 547 | 7 | | 2 | 15,070 |
| Rs. 15 | Rs. 10 | 250 | 360 | 820 | 360 | 320 | Rs. 15 | 160 | 160 | Rs. 15 | | Rs. 15 | |
| | | 68,450 | 637,560 | 85,120 | 477,380 | 130,240 | | 68,500 | 87,620 | | | | 3,427,700 |
| | | 32 | 22 | 27 | 23 | 28 | | 45 | 32 | | | | |
| 120 | 450 | 4,424 | 21,910 | 3,591 | 17,155 | 5,688 | 380 | 4,838 | 4,876 | 105 | | 45 | 156,592 |
| | | 518 | 2,959 | 398 | 1,492 | 610 | | | | | | | 19,942 |
| 120 | 450 | 4,942 | 24,905 | 3,990 | 18,647 | 6,308 | 380 | 4,838 | 4,876 | 105 | | 45 | 176,534 |
| 30 | 112 | 1,108 | 75,205 | 895 | 4,074 | 1,424 | 780 | 7605 | 1,094 | 26 | | 11 | 34,068 |
| 8-12-0 | 2-7-10 | 3-8-0 | 2-14-0 | 3-0-0 | 3-1-2 | 3-8-0 | 2-8-0 | 1-6-6 | 2-0-0 | 3-11-5 | | 3-10-8 | 2-4-3 |
| 3 | 8 | 57 | 382 | 46 | 179 | 152 | 1 | 176 | 329 | | | | 4,605 |
| Rs. 15 | Rs. 10 | 200 | 240 | 220 | 240 | 240 | Rs. 15 | 160 | 160 | | | | |
| | | 11,400 | 91,680 | 10,120 | 42,080 | 36,480 | | 28,160 | 52,640 | | | | 789,460 |
| | | 32 | 22 | 27 | 23 | 28 | | 45 | 32 | | | | |
| 45 | 80 | 570 | 3,151 | 427 | 1,544 | 1,598 | 15 | 1,980 | 2,632 | | | | 34,919 |
| | | 67 | 430 | 47 | 194 | 171 | | | | | | | 3,849 |
| 45 | 80 | 637 | 3,561 | 474 | 1,678 | 1,767 | 15 | 1,980 | 2,632 | | | | 83,768 |
| 11 | 20 | 142 | 7748 | 107 | 7367 | 399 | 72 | 7245 | 655 | | | | 7,727 |
| 3-10-8 | 2-8-0 | 2-7-10 | 1-15-4 | 2-5-3 | 2-0-10 | 2-10-0 | 2-0-0 | 1-6-7 | 2-0-0 | | | | 1-10-10 |
| 28 | 82 | 778 | 3,401 | 428 | 1,611 | 742 | 65 | 697 | 964 | 39 | 28 | 103 | 23,000 |
| | | 312,280 | 1,523,480 | 158,040 | 582,720 | 247,400 | | 115,160 | 157,760 | | | | 5,638,240 |
| 500 | 1,080 | 18,614 | 52,369 | 6,687 | 20,223 | 10,824 | 975 | 3,088 | 7,688 | 885 | 240 | 2,040 | 255,166 |
| | | 1,829 | 7,142 | 789 | 1,758 | 1,159 | | | | | | | 30,459 |
| 500 | 1,080 | 17,443 | 59,511 | 7,406 | 21,981 | 11,983 | 975 | 3,088 | 7,688 | 885 | 240 | 2,040 | 285,625 |
| 11-2 | 2-2-7 | 3,235 | 7,031 | 1,538 | 7,4797 | 2,699 | 7137 | 7907 | 1,069 | 159 | * | 345 | 53,579 |
| 4-0-0 | 2-12-3 | 4-2-8 | 3-2-0 | 3-0-6 | 2-15-8 | 3-10-2 | 2-1-9 | 1-6-2 | 2-0-8 | 4-1-3 | | 3-5-7 | 2-5-3 |

r fodder
are remaining after making the deductions detailed in paragraph 21

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---------------------|--------------------------------------|----------|----------|-------|---------------|--------|--------|--------|-------|--------|--------|----------|--------|
| Soil | DETAIL | KHARIF | | | | | | | | | | | |
| OWARI | | Jowar | Bajra | Maize | Other cereals | Mung | Mash | Moth | Guar | Chaula | Til | Cotton | Fodder |
| 1 | Average area in acres | 1 | | | | | | | | | | | |
| 2 | Yield per acre in sers or cash value | 360 | | | | | | | | | | 220 | Rs |
| 3 | Total yield in sers | 360 | | | | | | | | | | 1,040 | |
| 4 | Price in annas per maund | 20 | | | | | | | | | | 64 | |
| 5 | Value of grain | 11 | | | | | | | | | | 104 | |
| 6 | Value of straw | 5 | | | | | | | | | | 104 | |
| 7 | Value of gross produce | 16 | | | | | | | | | | 416 | |
| 8 | Government share at 16 1/2 per cent | 12 | | | | | | | | | | | |
| 9 | Rate per acre harvested | 2 | | | | | | | | | | 4 | |
| ASH | | | | | | | | | | | | | |
| 1 | Average area in acres | 24 | 69 | | 2 | 5 | 1 | 4 | 8 | | | 16 | 1 |
| 2 | Yield per acre in sers or cash value | 320 | 240 | | Rs 10 | 160 | 160 | 200 | Rs 3 | | | 240 | Rs 1 |
| 3 | Total yield in sers | 7,680 | 16,600 | | | 500 | 160 | 800 | | | | 3,840 | |
| 4 | Price in annas per maund | 20 | 23 | | | 30 | 32 | 22 | | | | 64 | |
| 5 | Value of grain | 240 | 595 | | 20 | 38 | 8 | 28 | 24 | | | 384 | 12 |
| 6 | Value of straw | 108 | 193 | | | 2 | 1 | 2 | | | | | |
| 7 | Value of gross produce | 348 | 688 | | 20 | 40 | 7 | 30 | 24 | | | 384 | 12 |
| 8 | Government share at 25 per cent | 151 | 149 | | | 10 | 11 | 15 | | | | 157 | |
| 9 | Rate per acre harvested | 2 2-0 | 3-2 7 | | 2 8-0 | 1 3-2 | 1 | 1 4-0 | | | | 5 7-0 | |
| DAHRI | | | | | | | | | | | | | |
| 1 | Average area in acres | 5 | 14 | | | 1 | | | | | | | |
| 2 | Yield per acre in sers or cash value | 320 | 240 | | | 160 | | | | | | | |
| 3 | Total yield in sers | 1,600 | 3,360 | | | 160 | | | | | | | |
| 4 | Price in annas per maund | 20 | 23 | | | 30 | | | | | | | |
| 5 | Value of grain | 50 | 121 | | | 8 | | | | | | | |
| 6 | Value of straw | 23 | 21 | | | 1 | | | | | | | |
| 7 | Value of gross produce | 73 | 142 | | | 9 | | | | | | | |
| 8 | Government share at 25 per cent | 110 | 30 | | | 11 | | | | | | | |
| 9 | Rate per acre harvested | 2 | 2 2-7 | | | 1 | | | | | | | |
| SUPERIOR BARANI | | | | | | | | | | | | | |
| 1 | Average area in acres | 1,524 | 2,496 | 14 | 97 | 168 | 63 | 86 | 826 | 14 | 204 | 1,342 | 1,036 |
| 2 | Yield per acre in sers or cash value | 280 | 240 | 240 | Rs 10 | 160 | 160 | 200 | Rs 3 | 120 | 140 | 220 | Rs 10 |
| 3 | Total yield in sers | 4,26,720 | 5,99,040 | 3,360 | | 26,880 | 10,080 | 17,200 | | 1,680 | 30,960 | 2,95,240 | |
| 4 | Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | 20 | 60 | 64 | |
| 5 | Value of grain | 13,435 | 21,528 | 118 | 970 | 1,269 | 504 | 591 | 2,478 | 52 | 3,165 | 29,524 | 10,360 |
| 6 | Value of straw | 6,001 | 3,744 | | | 84 | 32 | 54 | | 5 | | | |
| 7 | Value of gross produce | 19,336 | 25,272 | 118 | 970 | 1,314 | 536 | 645 | 2,478 | 57 | 3,465 | 29,524 | 10,360 |
| 8 | Government share at 25 per cent | 12,634 | 5,382 | 29 | 243 | 1210 | 184 | 199 | * | 19 | 866 | 16,613 | * |
| 9 | Rate per acre harvested | 1 13-9 | 2 2-6 | 2 1-2 | 2 8-1 | 1 4-0 | 1 5-1 | 1 2-5 | | 0 10-3 | 3 4-0 | 4 15-2 | |
| BRUH | | | | | | | | | | | | | |
| 1 | Average area in acres | 64 | 859 | 1 | 1 | 58 | 4 | 40 | 270 | 97 | 9 | 151 | 85 |
| 2 | Yield per acre in sers or cash value | 200 | 200 | 200 | Rs 10 | 160 | 160 | 200 | Rs 3 | 120 | 140 | 140 | Rs 10 |
| 3 | Total yield in sers | 12,800 | 1,71,800 | 200 | | 8,960 | 640 | 9,600 | | 4,440 | 1,260 | 21,140 | |
| 4 | Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | 20 | 60 | 64 | |
| 5 | Value of grain | 400 | 6,174 | 7 | 10 | 420 | 32 | 397 | 810 | 189 | 118 | 2,114 | 360 |
| 6 | Value of straw | 180 | 1,074 | | | 28 | 2 | 31 | | 14 | | | |
| 7 | Value of gross produce | 580 | 7,248 | 7 | 10 | 448 | 34 | 368 | 810 | 163 | 118 | 2,114 | 360 |
| 8 | Government share at 25 per cent | 185 | 1,544 | 2 | 2 | 170 | 15 | 156 | * | 123 | 30 | 1,474 | * |
| 9 | Rate per acre harvested | 1 5-4 | 1-12 8 | 2 | 2 | 1 4-0 | 1 4-0 | 1 2-7 | | 0 9-11 | 3 5-4 | 3 2-5 | |
| TOTAL OF THE CIRCLE | | | | | | | | | | | | | |
| 1 | Average area in acres | 1,618 | 3,438 | 15 | 100 | 230 | 68 | 139 | 1,104 | 51 | 273 | 1,513 | 1,067 |
| 3 | Total yield in sers | 4,49,160 | 7,90,760 | 3,560 | | 36,800 | 10,880 | 27,800 | | 6,120 | 36,270 | 3,21,280 | |
| 4 | Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | 20 | 60 | 64 | |
| 5 | Value of grain | 14,036 | 28,418 | 123 | 1,000 | 1,726 | 544 | 856 | 3,312 | 191 | 3,583 | 32,128 | 10,670 |
| 6 | Value of straw | 6,317 | 4,942 | | | 115 | 35 | 87 | | 16 | | | |
| 7 | Value of gross produce | 20,353 | 83,360 | 123 | 1,000 | 1,841 | 579 | 1,041 | 3,312 | 210 | 3,583 | 82,126 | 10,670 |
| 8 | Total value of the Government share | 12,982 | 7,105 | 31 | 250 | 1,287 | 190 | 1,160 | * | 132 | 596 | 17,222 | * |
| 9 | Rate per acre harvested | 1 13-6 | 2 1-1 | 2 1-1 | 2 8-0 | 1 4-0 | 1 5-2 | 1 2-5 | | 0 10-0 | 3 4-6 | 4-12-4 | |

* Whole produce deducted
† Value of the Government

| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|-------------|-------------|------------|--------------|------------|--------------|--------------|-------------|------------|------------|-------------|-------------|-------------|-----------|
| Rabi | | | | | | | | | | | | | |
| Gardens | Others | Wheat, | Barley | Gojra. | Gram | Gochhr | Pulses | Sarson | Taramura. | Fodder | Gardens | Others | Total. |
| 15
Rs 25 | 12
Rs 20 | 105
520 | 550
640 | 86
580 | 4
480 | 5
520 | | 52
200 | | 24
Rs 10 | 22
Rs 25 | 42
Rs 20 | 878 |
| | | 54,600 | 8,52,000 | 20,880 | 1,920 | 2,600 | | 10,400 | | | | | 4,43,800 |
| 375 | 240 | 32 | 22 | 27 | 23 | 28 | | 45 | | | | | |
| 375 | 240 | 320 | 1,650 | 881 | 69 | 114 | | 731 | | 240 | 550 | 840 | 18,995 |
| 63 | 40 | 3,050 | 13,750 | 978 | 6 | 12 | | 731 | | 240 | 550 | 840 | 2,091 |
| 4-3-2 | 3-5-4 | 435 | 11,815 | 147 | 110 | 19 | | 161 | | * | 92 | 140 | 21,086 |
| | | | | 114 | 2-8-0 | 3-9-7 | | 1-2-9 | | | 4-2-11 | 3-5-4 | 2,860 |
| | | | | | | | | | | | | | 3-4-5 |
| 1
Rs 25 | | 46
400 | 46
480 | 6
440 | 53
440 | 42
440 | | 9
200 | 4
200 | | | 1
Rs 20 | 349 |
| | | 18,400 | 22,080 | 2,640 | 23,320 | 18,480 | | 1,800 | 800 | | | | 1,17,360 |
| 25 | | 32 | 22 | 27 | 23 | 28 | | 45 | 32 | | | | |
| 25 | | 108 | 103 | 12 | 888 | 808 | | 127 | 40 | | | 20 | 5,105 |
| 6 | | 1,023 | 862 | 123 | 911 | 895 | | 127 | 40 | | | 20 | 599 |
| | | 230 | 1171 | 28 | 1189 | 202 | | 116 | 10 | | | 5 | 5,704 |
| 6 | | 5 | 3-11-6 | 4-10-8 | 3-8-9 | 4-12-11 | | 1-12-5 | 2-8-0 | | | 5 | 1,160 |
| | | | | | | | | | | | | | 3-5-2 |
| | | 6
400 | | 1
400 | 1
440 | 4
380 | | 1
200 | | | | | 83 |
| | | 2,400 | | 400 | 440 | 1,520 | | 200 | | | | | ... |
| | | 32 | | 27 | 23 | 28 | | 45 | | | | | 9,980 |
| | | 120 | | 17 | 13 | 87 | | 13 | | | | | 409 |
| | | 14 | | 2 | 1 | 7 | | | | | | | 69 |
| | | 134 | | 19 | 14 | 74 | | 13 | | | | | 478 |
| | | 80 | | 4 | 13 | 17 | | 12 | | | | | 97 |
| | | 5 | | 4 | 3 | 440 | | 2 | | | | | 2-15-0 |
| 15
Rs 15 | 30
Rs 15 | 519
320 | 2,292
400 | 232
360 | 1,479
400 | 1,424
360 | 18
Rs 10 | 592
160 | 252
160 | 1
Rs 10 | 3
Rs 15 | 16
Rs 15 | 14,812 |
| | | 1,86,080 | 9,16,800 | 83,520 | 5,91,600 | 5,12,640 | | 94,720 | 40,820 | | | | 38,22,840 |
| 225 | 535 | 32 | 22 | 27 | 23 | 28 | | 45 | 32 | | | | |
| 225 | 535 | 8,304 | 31,515 | 3,524 | 21,281 | 22,428 | 180 | 6,660 | 2,016 | 10 | 45 | 240 | 1,81,176 |
| 50 | 146 | 973 | 4,293 | 392 | 1,849 | 2,403 | | | | | | | 19,835 |
| 3-11-9 | 3-11-11 | 9,277 | 35,813 | 3,916 | 23,110 | 24,831 | 180 | 6,660 | 2,016 | 10 | 45 | 240 | 2,01,011 |
| | | 2,076 | 17,091 | 881 | 14,784 | 5,607 | 180 | 1833 | 504 | * | 11 | 60 | 38,478 |
| | | 4 | 3-1-0 | 3-12-9 | 3-3-9 | 3-15-0 | 2-8-0 | 1-6-6 | 2 | | 3-10-8 | 3-12-0 | 2-9-7 |
| 4
Rs 15 | 8
Rs 10 | 41
240 | 276
280 | 49
260 | 200
240 | 78
240 | 4
Rs 10 | 97
160 | 128
160 | | | 2
Rs 10 | 2,426 |
| | | 9,840 | 77,280 | 12,740 | 48,000 | 18,720 | | 15,520 | 20,480 | | | | 4,33,620 |
| 60 | 60 | 32 | 22 | 27 | 23 | 28 | | 45 | 32 | | | | |
| 60 | 60 | 492 | 2,657 | 537 | 1,725 | 819 | 40 | 1,091 | 1,024 | | | 20 | 19,486 |
| 15 | 20 | 58 | 362 | 60 | 160 | 88 | | | | | | | 2,047 |
| 3-12-0 | 2-8-0 | 550 | 3,018 | 597 | 1,875 | 907 | 40 | 1,091 | 1,024 | | | 20 | 21,533 |
| | | 123 | 1598 | 134 | 1368 | 205 | 17 | 1136 | 256 | | | 5 | 4,180 |
| | | 3 | 2-2-8 | 2-11-9 | 1-15-0 | 2-10-0 | 1-12-0 | 1-6-5 | 2 | | | 2-8-0 | 1-11-7 |
| 35 | 59 | 717 | 3,164 | 324 | 1,737 | 1,553 | | 751 | 384 | | | | 18,483 |
| 635 | 903 | 2,51,320 | 13,05,160 | 1,20,180 | 6,65,200 | 5,53,960 | | 1,22,620 | 61,600 | 25 | 25 | 61 | 48,27,600 |
| | | 32 | 22 | 27 | 23 | 28 | | 45 | 32 | | | | |
| 635 | 903 | 12,566 | 47,041 | 5,070 | 23,906 | 24,236 | 220 | 8,622 | 3,080 | 250 | 595 | 1,120 | 2,25,171 |
| 140 | 206 | 1,473 | 6,413 | 564 | 2,079 | 2,587 | | | | | | | 24,641 |
| 4 | 3-7-10 | 14,039 | 53,444 | 5,634 | 25,855 | 27,683 | 220 | 8,622 | 3,080 | 250 | 595 | 1,120 | 2,49,812 |
| | | 2,914 | 19,675 | 1,194 | 15,373 | 6,050 | 137 | 1,048 | 770 | * | 103 | 210 | 46,775 |
| | | 4-1-0 | 3-0-11 | 3-11-0 | 3-1-6 | 3-14-4 | 1-10-11 | 1-6-4 | 2 | | 4-1-11 | 3-7-1 | 2-8-6 |

for fodder
share remaining after making the deductions detailed in paragraph 31.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---------------------|----------------------------------------|---------|---------|--------|---------------|--------|-------|--------|-------|--------|-------|--------|--------|
| Sole | DETAIL | KHARIF | | | | | | | | | | | |
| | | Jowar | Bajra | Maize | Other cereals | Mung | Maab | Moth | Guar | Chaula | TH | Cotton | Hemp |
| CHANI | 1 Average area in acres | | | | | | | | | | | | |
| | 2 Yield per acre in sers or cash value | | | | | | | | | | | | |
| | 3 Total yield in sers | | | | | | | | | | | | |
| | 4 Price in annas per maund | | | | | | | | | | | | |
| | 5 Value of grain | | | | | | | | | | | | |
| | 6 Value of straw | | | | | | | | | | | | |
| | 7 Value of gross produce | | | | | | | | | | | | |
| | 8 Government share at 18½ per cent | | | | | | | | | | | | |
| | 9 Rate per acre harvested | | | | | | | | | | | | |
| ANI | 1 Average area in acres | 6 | 2 | | | | | | 1 | | 1 | 1 | |
| | 2 Yield per acre in sers or cash value | 280 | 240 | | | | | | Rs 3 | | 140 | 200 | |
| | 3 Total yield in sers | 1,680 | 480 | | | | | | | | 140 | 200 | |
| | 4 Price in annas per maund | 20 | 28 | | | | | | | | 60 | 64 | |
| | 5 Value of grain | 52 | 17 | | | | | | 3 | | 13 | 20 | |
| | 6 Value of straw | 24 | 3 | | | | | | | | | | |
| | 7 Value of gross produce | 76 | 20 | | | | | | 3 | | 13 | 20 | |
| | 8 Government share at 25 per cent | 111 | 4 | | | | | | * | | 8 | 15 | |
| | 9 Rate per acre harvested | 1-18 4 | 2 0 0 | | | | | | | | 3-0 0 | 5-0-0 | |
| DAIRI | 1 Average area in acres | 17 | 7 | | | | | | 1 | | 2 | 2 | |
| | 2 Yield per acre in sers or cash value | 280 | 240 | | Rs 10 | 160 | | | Rs 3 | | 140 | 200 | |
| | 3 Total yield in sers | 4,760 | 1,680 | | | 160 | | | | | 280 | 400 | |
| | 4 Price in annas per maund | 20 | 23 | | | 30 | | | | | 60 | 64 | |
| | 5 Value of grain | 149 | 60 | | 30 | 8 | | | 3 | | 26 | 40 | |
| | 6 Value of straw | 67 | 10 | | | 1 | | | | | | | |
| | 7 Value of gross produce | 216 | 70 | | 30 | 9 | | | 3 | | 26 | 40 | |
| | 8 Government share at 25 per cent | 132 | 15 | | 8 | 11 | | | * | | 6 | 9 | |
| | 9 Rate per acre harvested | 1 14-1 | 2-2-3 | | 2 10-8 | 1 0 0 | | | | | 3-0-0 | 4-8-0 | |
| BARANI | 1 Average area in acres | 1,160 | 1,035 | 85 | 39 | 96 | 29 | 10 | 151 | | 142 | 181 | 607 |
| | 2 Yield per acre in sers or cash value | 240 | 160 | 200 | Rs 10 | 120 | 120 | 160 | Rs 3 | | 80 | 140 | 140 |
| | 3 Total yield in sers | 278,400 | 165,600 | 7,000 | | 11,520 | 3,480 | 1,600 | | | 160 | 25,340 | 84,080 |
| | 4 Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | | 20 | 60 | 64 |
| | 5 Value of grain | 8,700 | 5,951 | 241 | 390 | 540 | 174 | 55 | 453 | | 50 | 2,376 | 8,498 |
| | 6 Value of straw | 3,915 | 1,035 | | | 35 | 11 | 5 | | | 1 | | |
| | 7 Value of gross produce | 12,615 | 6,986 | 241 | 390 | 576 | 185 | 60 | 453 | | 6 | 2,376 | 8,498 |
| | 8 Government share at 25 per cent | 11,849 | 1,488 | 60 | 98 | 120 | 129 | 19 | * | | 11 | 594 | 1,912 |
| | 9 Rate per acre harvested | 1-9-8 | 1 7 0 | 1-11 5 | 2 8 2 | 0-15-0 | 1 0 0 | 0 14-5 | | | 0-8-0 | 3-4-8 | 3-2-5 |
| BHUP. | 1 Average area in acres | 10 | 74 | | | 5 | | 5 | 20 | | 1 | | 12 |
| | 2 Yield per acre in sers or cash value | 160 | 160 | | | 120 | | 160 | Rs. 3 | | 80 | | 100 |
| | 3 Total yield in sers | 1,600 | 11,840 | | | 600 | | 800 | | | 80 | | 1,200 |
| | 4 Price in annas per maund | 20 | 23 | | | 30 | | 22 | | | 20 | | 64 |
| | 5 Value of grain | 50 | 428 | | | 28 | | 25 | 60 | | 2 | | 120 |
| | 6 Value of straw | 23 | 74 | | | 2 | | 2 | | | | | |
| | 7 Value of gross produce | 73 | 500 | | | 30 | | 30 | 60 | | 2 | | 120 |
| | 8 Government share at 25 per cent | 110 | 107 | | | 15 | | 15 | * | | | | 127 |
| | 9 Rate per acre harvested | 1 0-0 | 1-7-2 | | | 1 0 0 | | 1-0-0 | | | | | 2-4-0 |
| TOTAL OF THE CIRCLE | 1 Average area in acres | 1,193 | 1,118 | 35 | 42 | 102 | 29 | 15 | 173 | | 3 | 184 | 622 |
| | 2 Total yield in sers | 286,440 | 179,600 | 7,000 | | 12,280 | 3,480 | 2,400 | | | 240 | 25,760 | 86,780 |
| | 3 Price in annas per maund | 20 | 23 | 22 | | 30 | 32 | 22 | | | 20 | 60 | 64 |
| | 4 Value of grain | 8,951 | 6,454 | 241 | 420 | 576 | 174 | 83 | 519 | | 7 | 2,415 | 8,678 |
| | 5 Value of straw | 4,029 | 1,122 | | | 39 | 11 | 7 | | | 1 | | |
| | 6 Value of gross produce | 12,980 | 7,576 | 241 | 420 | 615 | 185 | 90 | 519 | | 8 | 2,415 | 8,678 |
| | 7 Total value of Government share | 11,802 | 1,614 | 60 | 108 | 129 | 129 | 114 | * | | 11 | 603 | 1,953 |
| | 8 Rate per acre harvested | 1 9 6 | 1 7 1 | 1 11-5 | 2-8 4 | 0 15 0 | 1 0-0 | 0-14-1 | | | 0-5-4 | 3-4-5 | 3-2-8 |

* Whole produce deducted for fodder
 * Value of the Government share remaining

| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|--------------|------------|-------------|------------|------------|------------|------------|--------------|------------|-----------|------------|------------|-------------|-----------|
| RABL | | | | | | | | | | | | | |
| Fodder | Gardens | Others | Wheat | Barley | Gojra | Gram | Gochni | Sargon | Taramira | Fodder | Gardens | Others | Total. |
| | | 2
Rs 20 | 2
820 | 36
400 | 3
360 | | | | | 3
Rs 10 | 2
Rs 25 | 10
Rs 20 | 58 |
| | | | 640 | 14,400 | 1,080 | | | | | | | | 16,120 |
| | | 40 | 32 | 22 | 27 | | | | | 30 | 50 | 200 | 893 |
| | | 40 | 32 | 495 | 46 | | | | | 30 | 50 | 200 | 77 |
| | | 7 | 4 | 68 | 5 | | | | | * | 8 | 33 | 135 |
| | | 3-8-0 | 2-8-0 | 2 0 10 | 2-10 8 | | | | | | 4-0-0 | 3 4 10 | 2-5-3 |
| 5
Rs 10 | | | 41
360 | 10
360 | 1
360 | 7
320 | 62
860 | 4
200 | | | | 52
Rs 20 | 193 |
| 60 | | | 14,760 | 3,600 | 360 | 2,240 | 22,820 | 600 | | | | | 46,580 |
| 50 | | | 32 | 22 | 27 | 23 | 28 | 45 | | | | 1,040 | 3,184 |
| * | | | 738 | 124 | 15 | 80 | 976 | 56 | | | | 1,040 | 3,428 |
| | | | 87 | 17 | 2 | 7 | 105 | 56 | | | | 260 | 768 |
| | | | 824 | 141 | 17 | 87 | 1,081 | 17 | | | | 5-0 0 | 3-15 10 |
| | | | 184 | 128 | 4 | 18 | 244 | 17 | | | | | |
| | | | 4-7 10 | 2-12-10 | 4 0 0 | 2-9 2 | 8-15-0 | 1 12-0 | | | | | |
| 16
Rs 10 | | | 19
360 | 3
360 | 9
360 | 8
320 | 24
360 | 1
200 | | | | 20
Rs 20 | 128 |
| 160 | | | 6,240 | 1,080 | 3,240 | 960 | 8,640 | 200 | | | | | 23,240 |
| 180 | | | 82 | 22 | 27 | 23 | 28 | 45 | | | | 400 | 1,819 |
| * | | | 342 | 37 | 137 | 35 | 878 | 14 | | | | 400 | 181 |
| | | | 40 | 5 | 15 | 8 | 40 | 14 | | | | 100 | 2,000 |
| | | | 382 | 42 | 152 | 38 | 418 | 12 | | | | 5-0-0 | 3-2-6 |
| | | | 86 | 18 | 34 | 18 | 94 | 12 | | | | | |
| | | | 4-8-5 | 2-10-8 | 3 12-5 | 2 10-8 | 3 14-8 | 2-0-0 | | | | | |
| 707
Rs 10 | 2
Rs 15 | 23
Rs 10 | 448
280 | 313
280 | 114
280 | 551
240 | 1,858
280 | 150
160 | 23
160 | 1
Rs 10 | | 82
Rs 15 | 7,145 |
| 7,070 | 80 | 230 | 124,880 | 87,640 | 31,920 | 189,440 | 380,240 | 24,000 | 3,680 | | | | 1,869,880 |
| 7,070 | 80 | 230 | 32 | 22 | 27 | 23 | 28 | 45 | 82 | 10 | | 1,230 | 70,074 |
| * | 8 | 230 | 6,244 | 8,018 | 1,847 | 5,011 | 16,685 | 1,687 | 184 | 10 | | 1,230 | 8,514 |
| | 4-0 0 | 57 | 6,976 | 8,424 | 1,497 | 4,447 | 18,417 | 1,687 | 184 | 10 | | 1,230 | 78,588 |
| | | 2-7 8 | 1,561 | 1,678 | 837 | 1,128 | 4,159 | 1,211 | 46 | * | | 308 | 14,623 |
| | | | 3-8-0 | 2 2-8 | 2-15-4 | 1 15 1 | 31-0 | 1-6-8 | 2-0-0 | | | 3-12-1 | 2-0-9 |
| 7
Rs 10 | | | 1
200 | 6
240 | 3
220 | 23
200 | 20
200 | 1
160 | 1
160 | | | | 189 |
| 70 | | | 200 | 1,440 | 660 | 4,600 | 4,000 | 160 | 160 | | | | 27,340 |
| 70 | | | 32 | 22 | 27 | 23 | 28 | 45 | 32 | | | | 1,231 |
| * | | | 10 | 50 | 28 | 185 | 175 | 11 | 8 | | | | 145 |
| | | | 1 | 7 | 3 | 14 | 19 | 11 | 8 | | | | 1,376 |
| | | | 11 | 57 | 31 | 178 | 194 | 11 | 2 | | | | 259 |
| | | | 3 0-0 | 1-13-4 | 2 5-4 | 1-9-9 | 2-3-2 | 1-0-0 | 2-0 0 | | | | 1 5-11 |
| 738 | 2 | 24 | 509 | 365 | 130 | 614 | 1,464 | 156 | 24 | | | | 7,713 |
| 7,350 | 30 | 270 | 147,320 | 108,160 | 87,260 | 147,240 | 415,200 | 25,180 | 3,840 | 4 | 2 | 164 | 1,488,160 |
| 7,350 | 30 | 270 | 32 | 22 | 27 | 23 | 28 | 45 | 32 | | | | 77,201 |
| * | 8 | 270 | 7,366 | 3,718 | 1,573 | 5,291 | 18,164 | 1,768 | 192 | 40 | 50 | 2,870 | 9,161 |
| | 4-0 0 | 64 | 8,229 | 4 227 | 1,748 | 460 | 1,946 | 1,768 | 192 | 40 | 50 | 2,870 | 86,362 |
| | | 2-10-8 | 1,839 | 1,799 | 380 | 5,751 | 20,110 | 1,768 | 48 | * | 8 | 701 | 18,188 |
| | | | 8 9-10 | 2 2 9 | 8-0-0 | 1-13-0 | 3-1-5 | 1 6-5 | 2 0-0 | | 4 0 0 | 4-1-5 | 2-1-7 |

after making the deductions detailed in paragraph 31.

STATEMENT XIV —TOTAL CASH RENTS PAID BY TENANTS-AT-WILL IN VILLAGES FINALLY

ATTESTED AND INSPECTED FOR ASSESSMENT.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--------------|------------------------|-------------------------------------------|--------|---------------|--------------------------------------------------------------------|--------|---------------|-----------------------|--------|---------------|----------------------------------------------------|
| Circle | Class of land or soil. | CASH RENTS PAID ON SINGLE CLASSES OF LAND | | | CASH RENTS PAID ON HOLDINGS CONTAINING MORE THAN ONE CLASS OF SOIL | | | TOTAL CASH RENTS PAID | | | REMARKS |
| | | Area | Rent | Rate per acre | Area | Rent | Rate per acre | Area | Rent. | Rate per acre | |
| BANGAL | Chahi | 168 | 789 | Rs a 4 14 | 121 | 537 | Rs a 4 7 | 284 | 1,328 | Rs a 4 11 | N a h r includes chahi nahr and narmot and ohiknot |
| | Nabri | 454 | 1,800 | 4 3 | 231 | 881 | 3 13 | 685 | 2,771 | 4 0 | |
| | Narmot | 1,920 | 7,150 | 3 12 | 805 | 2,717 | 3 6 | 2,725 | 9,867 | 3 10 | |
| | Magda | 284 | 1,001 | 3 13 | 241 | 826 | 3 7 | 505 | 1,829 | 3 10 | |
| | Bhur | 479 | 968 | 2 0 | 90 | 163 | 1 13 | 569 | 1,131 | 2 0 | |
| | Total | 3,280 | 11,708 | 3 10 | 1,488 | 5,126 | 3 7 | 4,768 | 16,924 | 3 9 | |
| BHUDER | Chahi | 257 | 1,164 | 4 9 | 220 | 1,128 | 5 2 | 477 | 2,292 | 4 13 | |
| | Abi | 10 | 73 | 7 5 | 17 | 140 | 8 4 | 27 | 213 | 7 14 | |
| | Dahri | 27 | 145 | 5 6 | 50 | 308 | 6 1 | 77 | 448 | 5 18 | |
| | Narmot | 180 | 608 | 3 6 | 104 | 397 | 3 13 | 284 | 1,005 | 3 9 | |
| | Magda | 346 | 1,178 | 3 7 | 229 | 887 | 3 14 | 575 | 2,065 | 3 9 | |
| | Bhur | 1,583 | 3,234 | 2 1 | 412 | 953 | 2 5 | 1,995 | 4,187 | 2 2 | |
| | Uncultivated | 5 | 7 | 1 6 | 14 | 22 | 1 9 | 19 | 29 | 1 8 | |
| | Total | 2,408 | 6,409 | 2 11 | 1,046 | 3,530 | 3 10 | 3,454 | 10,230 | 2 15 | |
| DAHAR MITHA | Chahi | 305 | 2,368 | 7 7 | 287 | 2,386 | 8 5 | 592 | 4,649 | 7 14 | |
| | Dahri | 89 | 629 | 7 1 | 424 | 3,389 | 7 14 | 513 | 3,968 | 7 12 | |
| | Narmot | 639 | 2,571 | 4 0 | 689 | 3,146 | 4 8 | 1,338 | 5,717 | 4 4 | |
| | Magda | 601 | 3,399 | 5 10 | 1,912 | 6,385 | 6 5 | 1,618 | 9,787 | 6 1 | |
| | Bhur | 391 | 1,230 | 3 2 | 493 | 1,726 | 3 8 | 884 | 2,956 | 3 0 | |
| | Total | 2,025 | 10,992 | 5 0 | 2,915 | 16,935 | 5 13 | 4,940 | 27,077 | 5 8 | |
| DAHAR KHARI | Chahi | 151 | 1,065 | 7 1 | 202 | 1,414 | 7 0 | 353 | 2,479 | 7 0 | |
| | Abi | 4 | 25 | 6 4 | 1 | 6 | 6 3 | 5 | 31 | 6 3 | |
| | Dahri | 32 | 214 | 6 11 | 17 | 113 | 6 10 | 49 | 327 | 6 11 | |
| | Narmot | 903 | 5,900 | 6 9 | 627 | 4,073 | 6 8 | 1,530 | 9,975 | 6 8 | |
| | Magda | 143 | 938 | 6 9 | 165 | 1,092 | 6 8 | 311 | 2,030 | 6 8 | |
| | Bhur | 48 | 284 | 5 15 | 79 | 464 | 5 14 | 127 | 748 | 5 14 | |
| | Total | 1,281 | 8,426 | 6 9 | 1,094 | 7,164 | 6 9 | 2,375 | 16,590 | 6 9 | |
| CHIKNOT | Chahi | 2 | 5 | 2 8 | 1 | 3 | 2 12 | 3 | 8 | 2 11 | |
| | Narmot | 102 | 365 | 3 9 | 33 | 128 | 3 14 | 135 | 493 | 3 10 | |
| | Total | 104 | 370 | 3 9 | 34 | 131 | 3 14 | 138 | 501 | 3 10 | |
| TOTAL TANGIL | Chahi | 878 | 5,288 | 6 0 | 831 | 5,488 | 6 9 | 1,709 | 10,754 | 6 4 | |
| | Nabri | 454 | 1,800 | 4 3 | 231 | 881 | 3 13 | 685 | 2,771 | 4 1 | |
| | Abi | 14 | 98 | 7 0 | 15 | 146 | 8 2 | 32 | 244 | 7 10 | |
| | Dahri | 148 | 988 | 6 11 | 491 | 3,755 | 7 10 | 649 | 4,743 | 7 7 | |
| | Narmot | 3,744 | 16,594 | 4 7 | 2,265 | 10,463 | 4 10 | 6,012 | 27,0 | 4 8 | |
| | Magda | 1,354 | 6,516 | 4 13 | 1,650 | 9,195 | 5 9 | 3,004 | 15,711 | 5 9 | |
| | Bhur | 2,501 | 5,716 | 2 5 | 1,074 | 3,306 | 3 1 | 3,575 | 9,022 | 2 8 | |
| | Uncultivated | 5 | 7 | 1 6 | 14 | 22 | 1 9 | 19 | 29 | 1 8 | |
| | Total | 9,095 | 37,095 | 4 1 | 6,577 | 33,236 | 5 1 | 15,675 | 70,331 | 4 8 | |

STATEMENT XV.—NORMAL CASH RENTS.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--------------|--------------|--------------|--------|---------------|---------------------|----------|---------------|-------------|-----------|---------------|--------------------------------------------------------|
| CIRCLE | Soil | SIMPLE RENTS | | | LUMP RENTS RESOLVED | | | TOTAL RENTS | | | REMARKS. |
| | | Area | Rent | Rate per acre | Area | Rent | Rate per acre | Area | Rent | Rate per acre | |
| | | | Rs | Rs A | | Rs A P | Rs A | | Rs A | | |
| BANGAR | Chahi | 81 | 347 | 4 5 | 45 | 183 0 | 4 1 0 | 126 | 530 0 | 4 2 | Nahri includes Chahi-Nahri and Narmot includes Chiknot |
| | Nahri | 228 | 967 | 4 2 | 104 | 416 0 | 4 0 0 | 332 | 1,383 0 | 4 2 | |
| | Narmot | 1,271 | 4,569 | 3 10 | 322 | 1,167 0 | 3 10 0 | 1,593 | 6,036 0 | 3 13 | |
| | Magda | 150 | 554 | 3 11 | 120 | 420 0 | 3 5 0 | 270 | 974 0 | 3 10 | |
| | Bhur | 401 | 747 | 1 14 | 78 | 138 0 | 1 12 5 | 479 | 885 0 | 1 14 | |
| | Uncultivated | | | | 3 | 3 0 | 1 0 0 | 3 | 3 0 | 1 0 | |
| | Total | 2,131 | 7,484 | 3 8 | 672 | 2,327 0 | 3 7 5 | 2,803 | 9,811 0 | 3 8 | |
| BHOJER | Chahi | 124 | 679 | 5 5 | 166 | 865 0 | 5 13 0 | 290 | 1,544 0 | 5 11 | |
| | Abi | 4 | 24 | 6 0 | 3 | 19 0 | 6 5 0 | 7 | 43 0 | 6 2 | |
| | Dahri | 15 | 80 | 5 5 | 43 | 242 0 | 5 10 0 | 58 | 322 0 | 5 9 | |
| | Narmot | 130 | 469 | 3 6 | 86 | 322 0 | 3 12 0 | 216 | 785 0 | 3 10 | |
| | Magda | 259 | 921 | 3 6 | 132 | 495 0 | 3 12 0 | 391 | 1,416 0 | 3 10 | |
| | Bhur | 1,356 | 2,602 | 1 16 | 303 | 619 0 | 2 0 8 | 1,659 | 8,221 0 | 1 15 | |
| | Uncultivated | | | | 5 | 5 0 | 1 0 0 | 5 | 5 0 | 1 0 | |
| Total | 1,888 | 4,769 | 2 9 | 738 | 2,667 0 | 3 9 10 | 2,626 | 7,436 0 | 2 13 | | |
| DAHAR MITHA | Chahi | 198 | 1,507 | 7 10 | 134 | 1,039 0 | 7 12 0 | 332 | 2,546 0 | 7 11 | |
| | Dahri | 83 | 573 | 6 14 | 61 | 427 0 | 7 0 0 | 144 | 1,000 0 | 6 16 | |
| | Narmot | 355 | 1,376 | 3 14 | 85 | 346 0 | 3 15 0 | 440 | 1,722 0 | 3 13 | |
| | Magda | 191 | 827 | 4 3 | 128 | 560 0 | 4 6 0 | 319 | 1,387 0 | 4 6 | |
| | Bhur | 275 | 674 | 2 5 | 104 | 260 0 | 2 8 0 | 379 | 934 0 | 2 7 | |
| Total | 1,102 | 4,887 | 4 8 | 515 | 2,632 0 | 5 1 8 | 1,617 | 7,569 0 | 4 11 | | |
| DAHAR KHARI | Chahi | 100 | 722 | 7 | 172 | 1,236 0 | 7 3 0 | 272 | 1,958 0 | 7 3 | |
| | Abi | 4 | 25 | 6 4 | 1 | 6 4 | 6 4 0 | 5 | 31 4 | 6 4 | |
| | Dahri | 36 | 239 | 6 10 | 15 | 99 0 | 6 10 0 | 51 | 338 0 | 6 10 | |
| | Narmot | 619 | 5,263 | 8 5 | 568 | 3,657 0 | 6 4 0 | 1,187 | 8,920 0 | 7 5 | |
| | Magda | 110 | 706 | 6 4 | 143 | 921 0 | 6 4 0 | 253 | 1,627 0 | 6 4 | |
| | Bhur | 21 | 118 | 5 10 | 62 | 349 0 | 5 10 0 | 83 | 467 0 | 5 10 | |
| Total | 1,090 | 7,073 | 6 8 | 961 | 6,268 0 | 6 8 0 | 2,051 | 13,341 0 | 6 8 | | |
| CHIKNOT | Chahi | 1 | 3 | 3 0 | 1 | 3 5 | 3 5 0 | 2 | 6 5 | 3 2 | |
| | Narmot | 85 | 294 | 3 5 | 33 | 125 13 | 3 13 0 | 118 | 419 13 | 3 6 | |
| | Total | 86 | 297 | 3 5 | 34 | 129 0 | 3 13 0 | 120 | 426 0 | 3 9 | |
| TOTAL TAHSIL | Chahi | 504 | 3,258 | 6 5 | 518 | 3,423 0 | 6 10 0 | 1,022 | 6,681 0 | 6 6 | |
| | Nahri | 228 | 967 | 4 2 | 104 | 416 0 | 4 0 0 | 332 | 1,383 0 | 4 2 | |
| | Abi | 8 | 49 | 6 2 | 4 | 25 4 | 6 5 0 | 12 | 74 4 | 6 3 | |
| | Dahri | 134 | 892 | 6 10 | 119 | 768 0 | 6 5 0 | 253 | 1,660 0 | 6 6 | |
| | Narmot | 2,660 | 12,285 | 4 10 | 1,097 | 5,617 13 | 5 2 0 | 3,757 | 17,882 13 | 4 12 | |
| | Magda | 710 | 3,008 | 4 2 | 523 | 2,896 0 | 4 9 0 | 1,233 | 5,404 0 | 4 4 | |
| | Bhur | 2,053 | 4,141 | 2 0 | 547 | 1,368 0 | 2 8 0 | 2,600 | 5,507 0 | 2 1 | |
| | Uncultivated | | | | 5 | 5 0 | 1 0 0 | 5 | 5 0 | 1 0 | |
| Total | 6,297 | 24,680 | 3 14 | 2,920 | 14,020 1 | 4 13 0 | 9,217 | 38,680 1 | 4 3 | | |

STATEMENT XVI —continued

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------------|-----------------|------------------|----------|-----------|------------------------------------------|------------------------------|-------------------|------------------|---------|
| Assessment Circle | Year | TOTAL ASSESSMENT | | | KHALSA REVENUE COLLECTED DURING THE YEAR | | Revenue suspended | Revenue remitted | REMARKS |
| | | Total | Assigned | Khalisa | On account of this year | On account of previous years | | | |
| DILNAH KHANNA | Last Settlement | Rs 38,420 | Rs 207 | Rs 38,213 | Rs 38,213 | | Rs | Rs 920 | |
| | 1883 84 | 30,256 | 947 | 35,308 | 23,772 | 207 | 8,582 | | |
| | 1889 90 | 37,411 | 881 | 36,430 | 34,650 | | 1,871 | | |
| | 1896 97 | 37,411 | 945 | 36,466 | 35,961 | | 505 | | |
| | 1897 98 | 37,411 | 945 | 36,466 | 36,466 | 487 | | | |
| | 1898 99 | 37,411 | 945 | 36,466 | 36,277 | | 124 | | |
| | 1899 00 | 37,411 | 945 | 36,466 | 15,420 | 8 | 20,845 | | |
| | 1900 01 | 37,411 | 945 | 36,466 | 36,466 | 10,230 | | | |
| | 1901 02 | 37,411 | 842 | 36,569 | 30,816 | | 10,044 | 16,028 | |
| | 1902 03 | 37,411 | 842 | 36,569 | 35,918 | 2,793 | 290 | | |
| | 1903 04 | 37,411 | 842 | 36,569 | 34,240 | 4,421 | 2,012 | | |
| | 1904 05 | 37,411 | 842 | 36,569 | 36,569 | 7,888 | | | |
| | 1905 06 | 37,411 | 842 | 36,569 | 20,040 | | 16,220 | 4,778 | |
| | Total | 4,86,197 | 11,070 | 4,75,127 | 4,17,730 | 22,928 | 61,799 | 21,724 | |
| CHILNOT | Last Settlement | { Fixed | 15,604 | 242 | 15,362 | 15,362 | | 2,174 | |
| | | { Fluctuating | 2,590 | | 2,590 | 2,590 | | | |
| | | Total | 18,194 | 242 | 17,952 | 17,952 | | 2,174 | |
| | 1883 84 | { Fixed | 13,095 | 199 | 12,896 | 9,440 | 3,402 | | |
| | | { Fluctuating | 1,876 | | 1,876 | 1,678 | | | |
| | | Total | 14,971 | 199 | 14,772 | 11,118 | 3,402 | | |
| | 1889 90 | { Fixed | 14,151 | 76 | 14,075 | 13,679 | 396 | | |
| | | { Fluctuating | 2,147 | 32 | 2,115 | 2,115 | | | |
| | | Total | 16,298 | 108 | 16,190 | 15,794 | 396 | | |
| | 1896 97 | { Fixed | 14,151 | 76 | 14,075 | 11,382 | 812 | 2,663 | |
| | | { Fluctuating | 607 | 13 | 594 | 594 | | | |
| | | Total | 14,758 | 89 | 14,669 | 11,976 | 812 | 2,663 | |
| | 1897-98 | { Fixed | 14,151 | 76 | 14,075 | 14,075 | 4,300 | | |
| | | { Fluctuating | 1,444 | 24 | 1,420 | 1,420 | | | |
| | | Total | 15,595 | 100 | 15,495 | 15,495 | 4,300 | | |
| | 1898-99 | { Fixed | 14,151 | 76 | 14,075 | 11,265 | 145 | 2,700 | |
| | | { Fluctuating | 350 | 6 | 350 | 350 | | | |
| | | Total | 14,507 | 82 | 14,425 | 11,615 | 145 | 2,700 | |
| | 1899 1900 | { Fixed | 14,151 | 76 | 14,075 | 603 | 113 | 13,472 | |
| | | { Fluctuating | 78 | 2 | 76 | 1 | | | |
| | | Total | 14,229 | 78 | 14,151 | 604 | 113 | 13,472 | |

STATEMENT XVI.—continued

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------------|-----------------|------------------|----------|-------------|------------------------------------------|------------------------------|-------------------|------------------|---------|
| Assessment Circle | Year | TOTAL ASSESSMENT | | | KHALSA REVENUE COLLECTED DURING THE YEAR | | Revenue suspended | Revenue remitted | REMARKS |
| | | Total | Assigned | Khalan | On account of this year | On account of previous years | | | |
| CHUKNOT — conold | 1900 01 | Rs 11,151 | Rs 76 | Rs 14,07 | Rs 14,07 | Rs 3,115 | Rs | Rs | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 940 | 15 | 22 | 870 | 70 | | | |
| | Total | 15,091 | 91 | 15,000 | 14,945 | 3,210 | | | |
| | 1901 02 | Rs 14,151 | Rs 76 | Rs 14,07 | Rs 2,233 | | 7,551 | 18,015 | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 222 | 2 | 22 | 220 | | | | |
| | Total | 14,373 | 78 | 14,290 | 2,453 | | 7,551 | 18,046 | |
| | 1902 03 | Rs 14,151 | Rs 76 | Rs 14,07 | Rs 9,978 | 203 | 4,007 | | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 707 | 13 | 784 | 784 | | | | |
| | Total | 14,858 | 89 | 14,85 | 10,762 | 203 | 4,007 | | |
| | 1903-04 | Rs 14,151 | Rs 76 | Rs 14,075 | Rs 11,460 | 105 | 2,616 | | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 488 | 8 | 480 | 480 | | | | |
| | Total | 14,639 | 84 | 14,555 | 11,940 | 105 | 2,616 | | |
| | 1904 05 | Rs 14,151 | Rs 76 | Rs 14,075 | Rs 14,075 | 2,772 | | | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 506 | 10 | 580 | 580 | | | | |
| | Total | 14,747 | 86 | 14,661 | 14,661 | 2,772 | | | |
| | 1905 06 | Rs 14,151 | Rs 76 | Rs 14,075 | Rs 2,011 | | 12,064 | 8,568 | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 221 | 3 | 218 | 199 | | | | |
| | Total | 14,372 | 79 | 14,293 | 2,210 | | 12,064 | 8,568 | |
| | Total | Rs 1,64,360 | 1,277 | Rs 1,63,053 | Rs 1,29,657 | 11,554 | 49,020 | 28,787 | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 12,364 | 128 | 12,236 | 12,057 | 75 | | | |
| | Total | 1,98,724 | 1,405 | 1,95,319 | 1,41,714 | 11,629 | 49,039 | 28,787 | |
| TO AL TANSIL | Last settlement | Rs 2,38,511 | 2,974 | Rs 2,35,537 | Rs 2,35,537 | | | 23,250 | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 2,593 | | 2,590 | 2,590 | | | | |
| | Total | 2,41,101 | 2,974 | 2,38,127 | 2,38,127 | | | 24,250 | |
| | 1883-84 | Rs 2,06,717 | 6,317 | Rs 2,00,400 | Rs 1,44,078 | 1,148 | 56,321 | | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 1,878 | | 1,878 | 1,878 | | | | |
| | Total | 2,08,595 | 6,317 | 2,02,278 | 1,45,957 | 1,148 | 56,321 | | |
| | 1889 90 | Rs 2,22,870 | 5,100 | Rs 2,17,770 | Rs 2,10,537 | 70 | 7,238 | | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 2,147 | 32 | 2,115 | 2,115 | | | | |
| | Total | 2,25,017 | 5,132 | 2,19,885 | 2,12,652 | 70 | 7,238 | | |
| | 1896 97 | Rs 2,22,963 | 4,411 | Rs 2,18,552 | Rs 2,15,071 | 812 | 3,481 | | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 67 | 13 | 594 | 584 | | | | |
| | Total | 2,23,630 | 4,424 | 2,19,146 | 2,15,655 | 812 | 3,481 | | |
| | 1897 98 | Rs 2,22,963 | 4,401 | Rs 2,18,562 | Rs 2,18,562 | 5,070 | | | |
| | { Fixed | | | | | | | | |
| | { Fluctuating | 1,444 | 24 | 1,420 | 1,420 | | | | |
| | Total | 2,24,407 | 4,425 | 2,19,982 | 2,19,982 | 5,070 | | | |

STATEMENT XVI.—concluded.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------------------|---------|----------------------|----------|-----------|------------------------------------------|------------------------------|-------------------|-------------------|----------|
| Assessment Circle | Year | TOTAL ASSESSMENT | | | KHALSA REVENUE COLLECTED DURING THE YEAR | | Revenue suspended | Revenue remitted. | REMARKS. |
| | | Total | Assigned | Khalas | On account of this year | On account of previous years | | | |
| TOTAL TAMIL—concluded | 1898-99 | { Fixed 2,22,919 | 4,401 | 2,18,518 | 2,13,902 | 145 | 4,359 | | |
| | | { Fluctuating 356 | 6 | 350 | 350 | | | | |
| | | Total 2,23,275 | 4,407 | 2,18,868 | 2,14,252 | 145 | 1,359 | | |
| | 1899-00 | { Fixed 2,22,919 | 4,390 | 2,18,529 | 1,17,839 | 257 | 1,00,461 | | |
| | | { Fluctuating 78 | 2 | 76 | 1 | | | | |
| | | Total 2,22,997 | 4,392 | 2,18,605 | 1,17,840 | 257 | 1,00,461 | | |
| | 1900-01 | { Fixed 2,22,919 | 4,390 | 2,18,529 | 2,18,529 | 49,431 | | | |
| | | { Fluctuating 840 | 15 | 925 | 870 | 75 | | | |
| | | Total 2,23,759 | 4,405 | 2,19,454 | 2,19,399 | 49,506 | | | |
| | 1901-02 | { Fixed 2,22,919 | 4,381 | 2,18,538 | 1,59,145 | | 58,192 | 77,774 | |
| | | { Fluctuating 222 | 2 | 220 | 220 | | | | |
| | | Total 2,23,141 | 4,383 | 2,18,758 | 1,59,365 | | 58,192 | 77,774 | |
| | 1902-03 | { Fixed 2,22,919 | 4,350 | 2,18,569 | 2,00,869 | 13,386 | 17,827 | | |
| | | { Fluctuating 797 | 13 | 784 | 784 | | | | |
| | | Total 2,23,716 | 4,363 | 2,19,353 | 2,01,653 | 13,386 | 17,827 | | |
| | 1903-04 | { Fixed 2,22,919 | 4,350 | 2,18,569 | 1,92,941 | 2,779 | 24,717 | 584 | |
| | | { Fluctuating 498 | 8 | 480 | 480 | | | | |
| | | Total 2,23,407 | 4,358 | 2,19,049 | 1,93,421 | 2,779 | 24,717 | 584 | |
| | 1904-05 | { Fixed 2,22,919 | 4,349 | 2,18,570 | 2,18,570 | 36,843 | | | |
| | | { Fluctuating 598 | 10 | 586 | 586 | | | | |
| | | Total 2,23,515 | 4,359 | 2,19,156 | 2,19,156 | 36,843 | | | |
| | 1905-06 | { Fixed 2,22,919 | 4,349 | 2,18,570 | 1,02,192 | | 1,16,378 | 20,806 | |
| | | { Fluctuating 221 | 3 | 218 | 199 | | | | |
| | | Total 2,23,140 | 4,352 | 2,18,788 | 1,02,391 | | 1,16,378 | 20,806 | |
| | Total | { Fixed 28,97,476 | 58,258 | 26,39,218 | 24,47,789 | 1,09,942 | 3,83,474 | 1,22,424 | |
| | | { Fluctuating 12,364 | 128 | 12,236 | 12,067 | 75 | | | |
| | | Total 29,09,840 | 58,386 | 26,51,454 | 24,59,856 | 1,10,017 | 3,83,474 | 1,22,424 | |

No 1092

FROM

B T GIBSON, Esquire, B A, I C S,
Settlement Officer, Gurgaon District,

TO

MAJOR F POPHAM YOUNG, C I E,
Settlement Commissioner, Punjab, Lahore
Dated GURGAON, 8th October 1907.

SIR,

I have the honour to forward the Assessment Report of the Nuh Tahsil written by Mr Boughhey, Assistant Settlement Officer

2 There is a close resemblance between the Nuh and Firozpur Tahsils, and the Firozpur Assessment Report, which has already gone to the Press, should be read with this. In both the proprietary body consists almost exclusively of Meos, who are pressing heavily on the soil and are extremely poor. There is nothing in the Nuh Tahsil, which corresponds to the fertile valley of the Landoha, but on the other hand the population is correspondingly less dense, and the percentage of mortgages is not so large. The Bangais of the two tahsils are almost identical, the only difference being that the nahri of the Nuh Bangai is markedly superior to that of Firozpur. The Dahar Circle of Nuh resembles but is superior to the Chiknot Circle of Firozpur, while the Taoru and Bhuder Circles correspond remarkably closely in the lightness of their barani soil, the regularity with which the wells are used, and in the consequent security of the cropping and prosperity of the proprietary body. I compare below for facility of reference the proposed rates in the circles above mentioned —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------|-------------|--------|--------|--------|--------|--------|-------------------|
| Circle | Pakke Chahi | Nahri | Abi | Dahri | Barani | Bhur | Total cultivation |
| | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p |
| Taoru | 2 4 0 | . | 1 4 0 | 1 4 0 | 0 15 0 | 0 8 6 | 1 0 5 |
| Bhuder | 2 4 0 | . | 2 2 0 | 2 2 0 | 1 7 0 | 0 11 6 | 1 2 4 |
| Dahar | 1 7 0 | . | 1 7 0 | 1 7 0 | 1 3 6 | 0 10 0 | 1 3 9 |
| Chiknot | 1 8 0 | . | 1 12 0 | 1 8 0 | 1 2 0 | 0 8 0 | 1 2 1 |
| Bangar | 1 8 0 | 1 11 0 | 1 3 6 | 1 3 6 | 1 3 6 | 0 10 0 | 1 5 0 |
| Do | 1 9 0 | 1 9 0 | . | 1 9 0 | 1 4 0 | 0 10 0 | 1 4 8 |

In the two last pairs of circles the rates correspond very closely. In the first pair the chahi rate is the same but the barani of the Taoru Circle lacks the fertility of the corresponding Bhuder soil.

3 In view of the orders recently passed on the subject of Assessment Reports written by Assistant Settlement Officers, it is perhaps unnecessary for me to add that I am in entire agreement with Mr Boughhey's proposals, which appear to me moderate and at the same time suitable and fair both to Government and the people.

I have the honour to be,

Sir,

Your most obedient servant,

B T. GIBSON,
Settlement Officer.

ASSESSMENT REPORT

OF THE

NUH TAHSIL

OF THE

GURGAON DISTRICT

PART I.—PRELIMINARY.

CHAPTER I—PHYSICAL DESCRIPTION.

1 The Nuh Tahsil is an irregularly shaped tract divided into two separate portions by a chain of hills running roughly North-West and South-East

Area and boundaries.

To the east of the hills is a parallelogram bounded on its remaining sides by three tahsils of the Gurgaon District, Ferozpur on the south, Palwal on the east, and Gurgaon on the north. On the west of the hills is a projection extending from the north half way down the total length of the tahsil, and bounded on the north and north-west by the Gurgaon and Rewari Tahsils, and after that by the Alwar State. Thus the hills separate the Gurgaon District from Alwar State from the south as far as the point where the projecting table land of Taoru begins, nowhere else does the tahsil adjoin outside territory.

2. The physical characteristics of the tract may all be traced to the above-mentioned line of hills, that form part of the great Aravalli range, and extend a long way beyond the limits of this tahsil both north and south. As Mr. Channing points out there are traces of another similar line slightly more to the east, which, though only visible at one or two places within the tahsil, is nevertheless important because it appears just north of the Nuh Tahsil, and forms the eastern side of the Bundsi valley, which is the source of a great deal of the drainage of the tahsil. The hills themselves are about 250 or 350 feet high, and are absolutely devoid of vegetation. As a grazing ground for goats and cattle they help to supply a much felt want, but their utility in this respect is more than counterbalanced by their forming a haunt for herds of chinkara and wild pig which do immense damage to the neighbouring crops. Their effect on soils and drainage will be dealt with under those heads, and I shall only here notice that they have a distinct climatic influence. The villages at their feet suffer severely from heat especially those on the eastern side, while during the rains the tract is devastated by fever.

Physical features

3. The only streams which have any effect on the tahsil now are the Mandwara and the Bironi. These are the two channels by which flood water enters the tahsil. They are merely torrents which flow after heavy rain, and carry off the drainage of the hills. Both have their rise in the Bundsi valley, and entering the tahsil from the north unite near the village of Kaliaka in front of the Khalipur Bund. The rest of the flooding is due to insignificant torrents to which no name has been given. The Indori Nadi passes through the Taoru Circle on its way to join the Sahibi in the Rewari Tahsil. It has no importance as an irrigation stream, though a certain amount of precarious cultivation is done in the dry bed of the stream. Formerly there was some dahr land in one or two villages in the Taoru Circle, but a bund constructed in Alwar, where the Indori rises, has put a stop to this. A similar complaint is made—I do not know with what truth—as regards the Landoh. This stream reaches the Nuh Tahsil after passing through Ferozpur, and its only effect here is in connection with the

Streams

the tahsil itself, the object of which is to hold up the waters and prevent them—wholly or in part—from entering the tahsil as they used to do. With these I am not concerned in this report, and I therefore proceed to discuss the means taken to deal with the diminished water supply that is now permitted to enter the tahsil. The Khalilpur Jhil was protected by a single bund bearing that name. This extends in a curve along the west side of the old jhil and diverts all the water that used to flow into the jhil, until it is absolutely held up by the Qutabgarh Bund. A sluice permits of water being let into the basin if required, and this is perhaps capable of some development. No real flooding is done on the inside of the bund, as the waters are merely guided past the dangerous part, and allowed to continue their course round the end of the bund. The map of the bunds will serve to illustrate the position. This is sufficient for the Khalilpur Jhil, but the floods thus diverted would if left to themselves go to swell the Chandeni Jhil. To prevent this a bund was built at Qutabgarh, which directly faces the course of the floods. Water is only let through in sufficient quantities for actual irrigation in the villages of Qutabgarh and Mailawas. A sluice was made higher up with the object of letting water into Ghasera, the lands of which have been almost entirely deprived of flood water by these means, but there is hardly ever enough water to reach as far along the bund as this. Between the Khalilpur and Qutabgarh Bunds the floods irrigate a large area of country. At the village of Chappera, which under the new system was liable to get too much water, a cut takes off, which passes by Aldonki and leads to the small Dorainchi Bund. In order to still further protect Chappera a mud rampart has been erected round the abadi. As a matter of fact these subsidiary works are rarely required. Only once since the construction of the bunds has Chappera been in danger of flooding, and even then the amount of water that was carried down to the Dorainchi Bund was apparently very small.

Turning to the Chandeni Jhil the most important works affecting this part of the drainage are situated outside the tahsil. The Sohna Bund holds up all the water that used to come down from there, though a large sluice is occasionally opened, which admits of a certain amount of flooding. This, however, is usually done in the interests of the Sohna people and more often than not damages the crops of the Nuh villages. The water may reach as far as Kherli Kankar, but never beyond that point, so it can hardly be said to affect the Chandeni Jhil now. The latter besides being protected from the Sohna floods is saved by the Qutabgarh Bund from any danger of overflow from the east. The only waters that enter it now come from the hills in the immediate vicinity. In the middle of the old jhil is a bund running east and west. This saves the Chandeni lands from excess flooding, as otherwise the surplus water from the northern half of the old jhil would flow down into the southern half. As it is, a small portion is liable to submersion though not to any serious extent. All this area has benefited most enormously by the drainage system. The land is the best in the tahsil, and the crops of wheat and gochu grown there in a fair year are wonderful. The present water supply is amply sufficient, and almost all danger of submersion has been avoided.

The last of the three jhils was the largest and most important of all. As previously pointed out the Kotila Bund has for a very long time cut off the floods from the Firozpur Tahsil, and after the Chandeni Cut was extended so as to form an embankment that joined the Kotila Bund, the only way for those floods to enter the jhil was by passing over the bund. This used to occur fairly frequently, and Mr. Channing in his report noted the fact and proposed that the Canal Department should charge abiana whenever it occurred. However for the last ten years no water has been carried along the Kotila Bund channel, and for very much longer than that no floods have passed over the bund. Besides this dam there is no other drainage work of any importance that was built with the avowed object of draining this jhil, but there can be no doubt that the draining of the other two jhils has had the result of diminishing the water supply of the Kotila Jhil also. Surplus water from the Chandeni Jhil used to pass on towards Kotila, but a good deal was utilised on the way, and the small irrigation cuts made for this purpose can still be seen between Nuh and the Chak Jhil lands. Apart from this, however, the area enclosed by the Kotila Bund and Chandeni Cut is very large, and as the slope is all towards the jhil a good deal of water used to accumulate there in the days when the Dahar Circle was almost entirely inundated.

But, as in the case of the Chandeni Jhil, the only water supply now for the jhil is from the hills in the immediate neighbourhood, and indeed these two jhils are now very similarly situated. The only difference is that the soil of the Kotla Jhil is harder and more black, while the slope from the hills is more pronounced, so that the floods enter the jhil area with more violence than is the case in Chandeni. Finally the Chandeni floods are spread over a larger area, the various channels by which the water comes down from the hills being somewhat further apart. Thus in every way the Chak Jhil tract is the more insecure owing to the hardness of its soil it requires more flooding, and yet its standing crops are more liable to be damaged when there is a late fall of rain.

Three small bunds have been built within the Chak Jhil area, of which only the Akhaira Bund is of any importance. The detailed statement attached to paragraph 44 shows that on the whole it has been fairly profitable. It holds up a little water which flows down the slope from east to west. All the irrigation is on the upper or eastern side, and no sluice was considered necessary. The Palla and Palri Bunds serve no useful purpose and might be handed over to the zamindars to keep up if they wish.

This completes the account of the drainage of the Dahar Circle. In Taoru several dams have been built, but the problem was very different. The circle is almost surrounded by hills, but the level being very much higher than that of the Dahar Circle the volume of water to be dealt with was much less, and there was no drainage question, the object being to utilise the water of the various torrents, which owing to the sandy character of the tract ate into the ground and did great damage by carving out deep nullahs. Eventually the floods spread over a certain amount of country, but being uncontrolled did more harm than good. The first two bunds I will describe are known as the Taoru-Bahora road and Taoru Bunds respectively. Their object was to hold up the floods which previously spoilt some very good land north of Taoru. The Taoru-Bahora road runs north and south, while the Taoru Bund takes off from it at a point about half mile north of Taoru and runs in a westerly direction. By these means the floods from the east and south have been held up and two blocks of land have been most successfully irrigated. The land to the east of the Taoru-Bahora Bund usually grows a good flooded crop. The old channel bed has silted up and is now almost level with the surrounding fields to a distance of about 300 yards from the road. At a point about $1\frac{1}{2}$ miles north of Taoru a sluice has been built to let off the surplus water which thus passes under the road and floods land on the west. At present this sluice is very badly placed and the only result of its use is to spoil some good well land. The district authorities have been addressed on this point, and I believe the question of altering its position is under consideration. The Taoru Bund has no sluice, but all the irrigation to the south is good and the aban land is most valuable. The Dhulawat Bund holds up water from the hills close to the village from which it takes its name. More water is held up than is required and the people are very anxious to have a sluice built in order to allow surplus water to be let off. This would not give any further irrigation as the land on the far side of the bund is unculturable, but the water could be let off into the old nullah bed and might be utilised lower down. At present the land under the bund is very liable to submersion and many good crops have been spoilt in this way. The Raheri bund irrigates about 50 acres, though in a good year over 100 acres have paid abiana. Here again there is no sluice, all the water being required for flooding inside the bund, and as a rule the results are most successful. These two bunds are situated close together east of Taoru, but the Raheri Bund gets much less water and there is no danger of submersion. Further north lies the Sabras Bund. This again deals with local drainage from the neighbouring hills, but it is not quite so successful as the others, as a good deal of damage is done. The people are anxious to have a few alterations made and I think the district authorities would be wise to get an expert to listen to what they have to say, and decide whether the proposed alterations are likely to make a real improvement.

5 Mr Channing divided the tahsil into three assessment circles, which

Assessment circles

have been retained unaltered. To the west lies the Taoru Circle, a high table land almost surrounded by hills and completely cut off from the rest of the tahsil, which it does not resemble in any way. The soil is sandy, and the

is the kharif when almost the whole circle is sown with the autumn and a little inferior cotton. In the spring they have to rely on water being plentiful and sweet there is a regular system of

the east of the hills is the lowlying Dahar Circle, which receives all the neighbourhood. Its chief characteristic is the soil just under the hills is light, it is very heavy clay, which contains a lot of kallar and a thorough soaking with rain water before it can produce being salt are merely used as a protection against total the action of the water is most injurious to the soil. Further upland forming part of the large loam plain extending from the Delhi District to the Kosi Tahsil of the Muttra Palwal Tahsil, to which it bears a strong resemblance. Watered by the Agra Canal, but the remainder is very hot and dry hardly varying at all the wells being salt are little used, the great the spring harvest. When there is a at fairly frequent intervals a wonderful obtained.

6 The classes of soil recorded last settlement were—

| | |
|----|---------------------------|
| 18 | Jinswar returns |
| 19 | Matured area |
| 20 | Percentage of principal |
| 21 | The system of cultivation |
| 22 | Soil. |

On soil.

Within the classes of chahi and dahri there was a further classification by soils, so that we have chiknot dahri, narmot chahi, etc. There was also a class *kabil abpashri*, in which was put land which was within the area served by a well, but was not irrigated in the year of measurement, and also land irrigable by wells not in use in the year of measurement.

The classification of soils now adopted is the same as the above, except that in irrigated lands no soil distinctions have been retained, while the definition of chahi has been altered. Two additional classes have been introduced, viz, *nahri* for canal irrigated lands, and *abi* for land irrigated from artificial embankments.

The following definitions appear in Mr. Hamilton's Preliminary Report on Soils, Assessment Circles, and Prices, and have been sanctioned for the present settlement.—

Chahi—All land regularly irrigated from a well whether the well is constructed of masonry or not, and whether it is worked by bullocks or by lift (*dhenkh*). Land will be regarded as regularly irrigated if it has received water in two different years in the period 1898-99 to 1902-03, provided the means of irrigation are still in existence.

Nahri.—All land regularly irrigated from the Agra Canal. Land will be regarded as regularly irrigated if it has received canal water in any two years from 1898-99 to 1902-03, or is irrigated at the time of measurement

Chahi-nahri—All land which is regularly irrigated both from the canal and from a well, whether the canal and well are used in the same harvest or not. All land which has been irrigated from the canal in two years out of the five years 1898-99 to 1902-03 and has also been irrigated from a well in the same five years will be regarded as chahi-nahri

Abi.—All land which is irrigated from tanks, jhils, springs, or from river branches, or by District Board bunds. Both the land flooded by water held up within the bund, and also the lands irrigated by cuts from the bund will be included.

The definitions of the unirrigated soils have not been changed. The definition of chahi has been altered, and this accounts to some extent for the difference in the area recorded now. The nahri classification is quite new, but neither this nor the chahi-nahri definition require comment.

7 The question of flooded lands forms one of the chief problems of the Nuh Tahsil. Mr. Channing experienced a similar difficulty, and he notes that he

flooded lands.

made a point of looking into this question himself in every village. In spite of this Mr. Wilson three years later was of opinion that the flooded area had been over-estimated, and there seems no doubt that this was true. Mr. Channing, from the statistics which he accepted, had an erroneous idea of the rainfall of the tract, and appears to have based his estimate of the floods on the results of exceptionally good years. But in any case the flooded area would now be much smaller than it was then. In the paragraph on drainage I have shown that since last settlement a great deal of the water supply has been cut off outside the tahsil; on the other hand the protection of the three swamps where water used to collect has placed a larger supply at our disposal for irrigation purposes. There is practically no difference between the figures for dahri at last settlement and those for dahri and abi now in the Dehar Circle, but these figures are not final, and it is probable that the difference will be greater when all the estates have been inspected. My own experience has been that the flooded area has again been often over-estimated. In places there was a tendency to accept all the settlement entries as correct, land which was shown as dahri in our papers was retained as flooded land in spite of altered conditions. For instance, both the Kotila Bund channel and the Chandani Cut used to convey water over a large portion of the Ujina flats. Owing to the various bunds this has been entirely altered, the Chandani Cut has not carried water for many years and the same is true of the Kotila Bund channel. Moreover, as I have elsewhere stated, it is likely that this area was liberally estimated on purpose because the land paid a baiam assessment and water rates. In spite of this the settlement entries had been accepted as they stood, and there is reason to suppose that the same kind of thing will be found elsewhere. However the entries are being constantly re-checked in the light of recent experience and by the time that all estates have been inspected, the question will have been gone into most thoroughly. The difficulties have of course been greatly increased by the abnormally dry seasons which have been experienced of late years, as until 1906 there had been no opportunity of testing the correctness of the entries. Fortunately the monsoon in that year was average, and the patwars were ordered to mark on their maps the area affected by flooding at the time when such flooding occurred. In order to further test the accuracy of these maps I had a rough crop register prepared for the Dahar Circle showing the crops grown on land alleged to have been benefited by flooding. The result shows that 71 per cent of the area was under wheat or gochni, 14 per cent under bejhar, the rest being miscellaneous crops. Bejhar is practically never grown on land that has received a real soaking, and it may safely be assumed that none of the 14 per cent under bejhar received any advantage from flooding. Of the miscellaneous crops not more than 8 per cent are flooded crops, the remainder being sarson and tara which are not grown on any but barani lands. This shows that about 80 per cent of the land said to have been flooded in 1906 was really advantaged. As it is proposed to put a fixed assessment on abi and dahri lands it is essential only to include in the definition such lands as possess a real advantage. I doubt if this has been done at present, and in dealing with the assessment of the Dahar Circle I shall again refer to this important question.

The classification of unirrigated soils made at last settlement has been very little altered, except where the disturbing elements noted above have come into play. In the Taoru Circle most of the soil has been recorded as magda and only the very sandy blocks are entered as bhur, but the difference is not great. The generally uniform character of the soil in the various circles has simplified this part of the work, and very few alterations have been found necessary.

8 Statement I gives details of the rainfall for 20 years from 1885-86 to 1905-06. There are three rain-gauges

Rainfall.

in the tahsil, and the average of all three has been taken. The year is divided into two periods, viz., the four months of monsoon rain and the rest of the year. The previous figures are compared with those now obtained in the following statement —

(The figures of the adjoining tahsil of Alwar State are added for reference).

| | |
|-------------------------------------------------------------------|-------|
| Average rainfall as given in Section 7, Gurgaon Settlement Report | 82.0 |
| Average rainfall as given in Section 7, Nuh Report | 28.2 |
| Average rainfall of 18 years in the Revision Report, Section 2 | 24.0 |
| Average rainfall Tijara Tahsil Alwar (1876—1898) | 22.07 |
| Statement I { Rain Registers | 23.03 |
| { Gazette Average | 23.33 |

In Section 2 of the Revision Report Mr Wilson points out that the figures given by Mr Channing do not represent a true average being the result of a few exceptionally wet years. In a district where the variations are so great any attempt to deduce an average from a few years is extremely dangerous. The present statement shows a maximum of 43.06 inches in 1885-86 and a minimum of 11.88 inches in 1905-06. It will be noticed that the present average is slightly below Mr Wilson's, but the gazette returns on which he based his calculations were admittedly in excess of a true average. The difference is in any case slight, and seems to dispose of the theory prevalent among the people that the rainfall has been diminishing. But there can be no doubt that in the Dahar Circle 23 inches of rain do not mean so much as they did before the floods were held up or diverted by bunds. When Mr. Channing wrote his report a normal monsoon rainfall meant that a very large area was thoroughly soaked, and even allowing for loss by submersion the harvests were generally good. The result of interfering with these natural floods as far as this circle is concerned has been to make the distribution of rainfall far more important than it was before. Most of the soil is heavy (some of it being extremely stiff clay), and as it does not get soaked to the same extent now, frequent rain is absolutely necessary.

The area under crops is larger in the autumn than in the spring harvest but the latter entirely consists of valuable crops capable of yielding a high outturn. For the former about 17 inches of rain are required during the four months; less than 14 inches may be said to result in total failure, while the average rainfall of 23 inches should be sufficient to ensure a fairly good crop. The statement shows how abnormal the last few years have been. In the 20 years there have been 9 falls of less than 17 inches, 5 of which have occurred in the last eight years. For the spring crop no similar estimate of the amount of rainfall required can be made, as proper distribution means much more than actual amount. Rain is required at least every 6 weeks and a very heavy fall late in the season is certain to damage the gram and submerge a large area of lowlying crops.

The sandy circle of Taoru can do with considerably less rain than is required in the rest of the tahsil. Its principal harvest is the kharif, and as the monsoon rarely fails altogether there is usually some sort of a crop. Moreover the circle is particularly hardy and the variation in rainfall has a very much slighter effect.

CHAPTER II.—GENERAL STATISTICS

9. The following table compares the areas of the past and present Settlements. Before Mr. Channing's Settlement the villages now included in the

Area. Nuh Tahsil were distributed over various parganas which were merged into the tahsils of Gurgaon, Palwal, and Nuh, making any comparison of area impossible.—

| 1 | 2 | 3 | 4 | 5 |
|-----------------|---------------------|-----------------------------|--------------|------------|
| | Total area in acres | PERCENTAGE OF TOTAL AREA OF | | |
| | | Uncultivable | Uncultivated | Cultivated |
| Last Settlement | 237,607 | 12 | | |
| Nuh | 227,400 | 12 | 6 | 81 |
| | | | 6 | 82 |

Cultivation had practically reached its limit at last settlement, and there is very little difference between the two sets of figures. No further extension is possible without encroaching on the grazing area, which is already too small. Fortunately a good deal of the unculturable area consists of hills where some grazing is obtained, but the remainder is salt land which hardly produces anything beyond a few karil bushes. The present area is distributed by circles as follows .—

| 1 | 2 | 3 | 4 | 5 |
|---------------------|-------|-------|--------|-------|
| Heading | Taoru | Dahar | Bangar | Total |
| Unculturable | 22 | 14 | 5 | 12 |
| Culturable ... | 3 | 7 | 6 | 6 |
| Cultivated ... | 75 | 79 | 89 | 82 |

The above figures do not require much explanation. The large unculturable area in the Taoru Circle is all hill land, and this explains why the culturable area is so small, there being less necessity to set aside land for grazing. Similarly the difference between the Dahar and Bangar Circles is almost entirely due to the hill area possessed by the former, though possibly there is also slightly more salt land. The culturable area in each circle is terribly small.

10. The areas of each class on soil at last settlement and now are compared in the following statement —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------|-----------------|-------|------------------|-------|------------------|-------|-----------------|-------|
| Soil | TAORU | | DAHAR | | BANGAR | | TOTALTAHSIL. | |
| | Settle-
ment | Now | Settle-
ment. | Now | Settle-
ment. | Now | Settle-
ment | Now |
| Chahr | 9 34 | 13 08 | 3 38 | 3 63 | 5 04 | 5 61 | 5 23 | 6 30 |
| Nahr | | | | | ... | 26 71 | | 11 06 |
| Abi | | 2 65 | | 8 08 | | 1 10 | | 4 13 |
| Dahr | 2 18 | 1 45 | 37 68 | 29 23 | 07 | 08 | 15 17 | 11 71 |
| Chiknot | | | 1 43 | 2 23 | 2 54 | 1 50 | 1 61 | 1 49 |
| Narmot | 1 99 | 1 89 | 36 62 | 36 06 | 72 39 | 46 68 | 44 71 | 33 76 |
| Magda | 64 91 | 61 63 | 10 05 | 10 41 | 11 36 | 10 37 | 21 28 | 20 43 |
| Bhar | 21 58 | 19 30 | 10 84 | 10 36 | 8 60 | 7 91 | 12 00 | 11 10 |

The large increase in the chahr area is due in great measure to the different classification now adopted.

The new nahr classification needs no comment but it explains the alteration in the narmot area in the Bangar Circle. The classification of land as abi is also new. Taken in conjunction with the dahr the figures are very interesting. In the Taoru Circle where the bunds have been most useful the total flooded area shows a decided advance on the settlement figures. In the Dahar Circle the total is exactly the same, but this result has largely been obtained by blindly following the settlement classification in spite of altered conditions, and I have elsewhere stated my reasons for thinking that the total flooded area now is smaller than it used to be. The unirrigated soils were most carefully classified at last settlement, and practically no alterations have been made. As the final attestation of many villages remains to be done the above distribution is liable to alterations.

The increase of cultivation by circles is as follows :—

| | | | | | | | |
|--------------|-----|-----|-----|-----|----|----|----|
| Taoru | . | . | . | . | .. | .. | 14 |
| Dahar | ... | . | ... | ... | . | .. | 6 |
| Bangar | ... | ... | ... | ... | .. | . | 6 |
| Total Tahsil | ... | | | | | | 75 |

11. In this tahsil well irrigation is for the most part protective only. The chief crops are the valuable spring crops

Irrigation
(a) Wells

grown on unirrigated land and the wells

are used as little as possible. There are several reasons for this. First and foremost is the saltiness of the water. Even if there is rain at sowing time the heavy clay and loam soils are injuriously affected by the use of salt water. There is moreover a great tendency to saltiness in the soil, and this is intensified by irrigation with salt or brackish water. As this will be dealt with more fully in the chapter on the system of cultivation, it is sufficient here to note that though the wells are practically not used at all in the autumn, and as little as possible in the spring, the protection afforded by them is most valuable, as in dry years the unirrigated crop is a total failure. The above remarks do not apply to the Taoru Circle where the wells are in regular use for the same reasons as in the Rewari Tahsil.

The data relating to the wells of each circle are given in Statement III. Kachcha wells are only popular in the Taoru Circle, and it is curious to notice that this popularity is of very recent growth. The reason appears to be that there are now enough masonry wells to ensure a fair amount of stable irrigation, and it has been found profitable to dig rough kachcha wells, which here cost only about Rs. 10, and often not as much as that, and last from 2 to 10 years. In the other circles the saltiness of the water and the system of irrigation referred to above, render kachcha wells useless. The cost of a masonry well varies with the size and length of the cylinder. The result of my inquiries has been to show that an average well costs Rs. 20 per hath (i.e., $1\frac{1}{2}$ feet) to construct. This assumes that the work is done by the zamindar himself with the help of a mason and not given out on contract. In the latter case the cost is much more. On the above assumption the cost works out as follows.—

| | | | | | | | Rs. |
|--------|-----|-----|-----|-----|-----|-----|-----|
| Taoru | } | | | | | | |
| Bangar | | ... | ... | ... | ... | ... | 750 |
| Dahar | ... | .. | ... | | ... | ... | 450 |

A good masonry well lasts for 200 or 300 years, but there is a tendency to leave repairs rather too long, and I should put the life of a well at not more than 150 or 200 years.

Another class of well is found sometimes in the Dahar and Bangar Circles known locally as Kurand. These are roughly made with stones put together without the help of mortar above the water level. They are not very successful as they cost about half as much as a proper masonry well and do not last nearly so long. Lastly there is the dhenkli, consisting of a shallow hole in the ground from which water is lifted by a wooden lever. A few are in regular use by mahis for growing vegetables and other valuable garden produce, but as a rule they are used in dry years only. Water must be very close to the surface to make the dhenkli profitable, and the three places where they are to be seen working in great numbers in a dry year are the Kotla and Chandni Jhils, and the lowlying flats near Ujina. The dhenkli is always dug by the user himself, and the only cost is about Re. 1 or Rs. 2 for the wood lever, which will last for a fairly long time.

The average area irrigable per lao in each circle is shown in columns 36 and 37 of Statement III. It is largest in the Taoru Circle where irrigation is regular, though 4 acres is a very low average. The reason, I think, is that near the hills the wells are deep and hard to work, and consequently irrigation is small. In the fertile villages in the middle of the circle the irrigation is distinctly higher, and I was not prepared for such a low figure. In the Dahar and Bangar Circles the small average irrigation is due to the peculiar circumstances which have been already noticed. The figures are however somewhat misleading, as there are many two lao wells on which both laos are never worked together, because the result would be to work down to the salt source and ruin the well. Such wells have to be shown as two lao wells, but naturally the irrigation, which would be small for a single lao, is ridiculously

inadequate for two. Moreover even when this is not the case it is very common to find that a well is not being used to the full capacity of the working laos because it is not spring-fed, and if overworked is liable to run dry. This to a certain extent vitiates the resulting averages, but on the other hand it shows how limited the action of the wells necessarily is in those circles. As regards the character of the water it may be said that generally water in the Taoru Circle is sweet, and in the other circles either salt or brackish. This is true of Taoru almost without exception as the statement shows. In the other two circles the proportion of salt and brackish wells would be very much higher, but for the fact that there are a number of wells the surface water of which is sweet but the source being salt, the character of the water changes after it has been worked for a short time. Most of these wells have been recorded as sweet. As a matter of fact, except just under the hills, I do not think any sweet wells exist in the Dahar Circle, and I doubt if there are any in the Bangar Circle either. For the cost of wood-work and the method of working the wells I would refer to paragraph 8 of the Rewari Report. The various prices given to me in answer to my inquiries were somewhat higher than those detailed for Rewari, but the recent famine has had a very serious effect on the Nuh Tahsil and prices are admittedly inflated.

The increase or decrease per cent of wells capable of use, laos and irrigation in each circle is as follows --

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------|--------------|---------|-------|---------|------------|---------|--------|
| CIRCLE | WELLS IN USE | | LAOS | | IRRIGATION | | |
| | Pakka | Kachoha | Pakka | Kachoha | Pakka | Kachoha | Total. |
| Taoru | +33 | +242 | +25 | +160 | +10 | +75 | +19 |
| Dahar | +164 | +500 | +26 | . | +99 | +71 | +97 |
| Bangar | +102 | +500 | +30 | -70 | +56 | +583 | +58 |
| Total Tahsil | +78 | +252 | +27 | +96 | +38 | +87 | +42 |

This shows a most satisfactory development in irrigation throughout the tahsil. The largest increase in masonry wells has been in the Bangar Circle. Considering that this circle alone has benefited by canal irrigation the development appears abnormal, but the area that is not served by the canal is very badly off. There is no flooding as in the Dahar Circle, and in a dry year there would be total failure except for the wells, moreover, as previously stated, the wells when sunk cannot be fully used. It is instructive to compare the protective power exercised by a well in the various circles. In the Dahar Circle it is terribly small. The chahi area per well is only 5 aores and the irrigation 2 aores. This includes a certain number of wells under the hills, where the water is good and the soil light, and where consequently irrigation is properly kept up. In the Bangar Circle a well protects between 9 and 10 aores and irrigates 4, while in the Taoru Circle between 8 and 9 aores are protected and over 5 aores irrigated. The figures in columns 3 and 18 show that the proportion of single laos wells is greatest in Taoru, so this difference is not due to any superiority in the size of the Taoru wells, but is a real illustration of the comparative effectiveness of irrigation in the various circles. The extraordinary figures for non-masonry wells in the Dahar and Bangar Circles may be neglected, the total number being 12 in each circle as against 2 at last settlement. The present irrigated area is the average of the 8 years from 1898-99 to 1905-06 and may be taken as accurately representing the average in the various circles. The settlement figures only give the area irrigated in the year of measurement. In a tahsil where the well irrigation varies so enormously with the rainfall the results of a single year are most unlikely to prove of any value, and this is shown by comparing the result of

adding the two years of revision, and getting an average for three years as follows.—

| 1 | 2 | 3 |
|--------|------------|---------------------|
| Circle | Settlement | Average of 3 years. |
| Taoru | 2,480 | 2,717 |
| Dahar | 577 | 896 |
| Bangar | 1,406 | 1,542 |

This shows that the increase in irrigation is not so large as the figures seem to indicate, in fact as there happened to be really good rain in the year of measurement the figures are useless (as regards the Dahar and Bangar Circles) except to show how little the wells are required in a good year. The information required by Settlement Commissioner's Circular No. 21 is given in the following statement:—

| 1 | 2 | 3 | 4 |
|-------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Assessment circle | Number of masonry wells in use in the beginning of the expiring settlement which have fallen out of use during its term | Number of new masonry wells sunk during the term of the expiring settlement and still in use | Number of masonry wells which were not in use at the beginning of the expiring settlement but were repaired during its term and are still in use |
| Taoru | 10 | 74 | 33 |
| Dahar | 55 | 110 | 55 |
| Bangar | 24 | 107 | 61 |
| Total Tahsil | 89 | 291 | 149 |

The system of irrigation in vogue on the Agra Canal has been described in the Palwal Report

(b) Canal irrigation.

There are no important differences in the Nuh Tahsil. The cultivators are mostly Jats, the proportion of Meos being too small to affect the main results. The average area irrigated yearly for the selected years is 17,452 acres, or 75 per cent of the nahri area, which corresponds almost exactly with the Palwal figures. At last settlement irrigation from the Agra Canal was only just beginning, and Mr Channing did not levy any nahri assessment, nor did he give details by tahsils of the area irrigated. He notes however that in the year of measurement 23 Nuh villages took canal water in the autumn and 22 in the spring, the irrigation for the whole district being 41,275 acres in that year. Mr Wilson in his Revision Report gives more detailed figures, the entries for the Nuh Tahsil being as follows.—

| 1 | 2 | 3 |
|----------------------------------------------------|-------------------------|---------|
| Number of villages in which irrigation takes place | AREA IRRIGATED IN ACRES | |
| | 1881-82 | 1882-83 |
| 25 | 9,974 | 12,145 |

The actual increase in irrigation is shown in the following table of the areas irrigated in each harvest since the introduction of irrigation in 1875 —

| 1 | | | | | | 2 | 3 | 4 |
|---------------------|----|----|----|----|----|--------|--------|--------|
| Year. | | | | | | Kharif | Rabi | Total |
| 1883-84 | .. | .. | .. | .. | .. | 5,641 | 12,398 | 18,039 |
| 1884-85 | .. | .. | .. | .. | .. | 7,181 | 5,896 | 13,077 |
| 1885-86 | .. | .. | .. | .. | .. | 6,108 | 10,910 | 17,018 |
| 1886-87 | .. | .. | .. | .. | .. | 2,192 | 7,354 | 9,546 |
| 1887-88 | .. | .. | .. | .. | .. | 5,827 | 7,754 | 13,581 |
| 1888-89 | .. | .. | .. | .. | .. | 4,717 | 9,728 | 14,445 |
| 1889-90 | .. | .. | .. | .. | .. | 7,049 | 11,564 | 18,613 |
| 1890-91 | .. | .. | .. | .. | .. | 4,735 | 10,468 | 15,203 |
| 1891-92 | .. | .. | .. | .. | .. | 7,004 | 12,031 | 19,035 |
| 1892-93 | .. | .. | .. | .. | .. | 4,934 | 5,705 | 10,639 |
| 1893-94 | .. | .. | .. | .. | .. | 4,772 | 6,883 | 14,355 |
| 1894-95 | .. | .. | .. | .. | .. | 7,778 | 4,955 | 12,733 |
| 1895-96 | .. | .. | .. | .. | .. | 6,360 | 9,289 | 15,649 |
| Average of 10 years | | | | | | 5,607 | 8,573 | 14,380 |
| 1896-97 | .. | .. | .. | .. | .. | 9,141 | 15,259 | 24,400 |
| 1897-98 | .. | .. | .. | .. | .. | 8,809 | 8,757 | 17,566 |
| 1898-99 | .. | .. | .. | .. | .. | 7,242 | 10,320 | 17,562 |
| 1899-1900 | .. | .. | .. | .. | .. | 8,780 | 11,214 | 19,994 |
| 1900-01 | .. | .. | .. | .. | .. | 10,541 | 4,337 | 14,878 |
| 1901-02 | .. | .. | .. | .. | .. | 7,739 | 11,511 | 19,250 |
| 1902-03 | .. | .. | .. | .. | .. | 8,150 | 9,789 | 17,939 |
| 1903-04 | .. | .. | .. | .. | .. | 8,333 | 9,327 | 17,660 |
| 1904-05 | .. | .. | .. | .. | .. | 9,177 | 630 | 9,807 |
| 1905-06 | .. | .. | .. | .. | .. | 6,003 | 11,695 | 17,698 |
| Average of 10 years | | | | | | 8,391 | 9,284 | 17,675 |

The great variation in the figures is due to the fact that the amount of canal water taken varies with the rainfall, in a good year very little water is wanted, whereas in a dry season the cultivators will take all that they can get. Unfortunately this tahsil lies at the extreme edge of the area served by the canal and there is usually not enough water for their needs in a dry season. The ten years' averages indicate a steady increase in the irrigated area, and though to a certain extent the recent dry years are responsible for this, yet new distributaries have been opened, and the canal is generally popular.

The following statement has been made up from figures supplied by the Canal Department. It shows the area irrigated with the amount collected during the five years selected for the Produce Estimate

| 1 | 2 | 3 | 4 | 5 | 6 |
|------------------------|---------------------------------|--------|--------|------------------|---------------|
| Year | AVERAGE AREA IRRIGATED IN ACRES | | | Occupier's rates | Owner's rates |
| | Flow | Lift | Total. | | |
| 1898-99 | 15,327 | 2,069 | 17,396 | 51,304 | 14,477 |
| 1900-01 | 12,089 | 2,366 | 14,455 | 41,445 | 13,342 |
| 1901-02 | 16,116 | 3,253 | 19,369 | 56,639 | 18,865 |
| 1902-03 | 14,359 | 2,800 | 17,159 | 50,941 | 16,351 |
| 1903-04 | 14,819 | 3,254 | 18,073 | 53,655 | 17,182 |
| Total of the 5 years | 72,710 | 13,742 | 86,452 | 2,56,034 | 80,217 |
| Average of the 5 years | 14,542 | 2,748 | 17,290 | 51,207 | 16,043 |

For purposes of reference I also append the table of the rates of canal dues now in force on the Agra Canal. The old and new rates are compared in

para. 8 (b) of the Palwal Report, where the whole question has been fully discussed.

| 1 | 2 | 3 | 4 | 5 |
|--------------------------------|----------|---------|-------------------------------|-----------|
| Crops. | Original | Revised | PROPOSED BY PUNJAB GOVERNMENT | |
| | | | Per acre | Per bigha |
| | Rs a p | Rs a p | Rs a p | Rs a p. |
| Cane | 8 14 3 | 8 14 3 | 8 12 10 | 5 8 0 |
| Wheat, barley, and mixtures .. | 4 0 0 | 5 5 4 | 5 3 3 | 3 4 0 |
| Gram and peas .. | 4 0 0 | 2 10 8 | 2 12 10 | 1 12 0 |
| Cotton .. | 4 0 0 | 2 10 8 | 2 12 10 | 1 12 0 |

12. The main road from Gurgaon to Firozpur passes through this tahsil. From Gurgaon to Nuh it is already metalled, and the conversion of the remaining portion is now being undertaken as well as of the road from Nuh to Palwal. The latter is the more important of the two as far as this tahsil alone is concerned, as it links it up with the Agra-Delhi-Chord Railway, besides facilitating communication with the important market town of Palwal, which already receives most of the surplus cotton of the tahsil. The eastern portion of the tahsil has fairly easy communication with the town of Hodal, in the Palwal Tahsil, which is also on the Agra-Delhi-Chord Railway, and besides being a market town itself, lies close to the town of Kosi in the Muttra District. Thus the canal area is fairly accessible, and as the available surplus is largest there this is satisfactory. The Grand Trunk Road passes quite close to the eastern boundary of the tahsil, and is of great assistance in conveying produce to Hodal. Both Palwa land Hodal contain ginning mills, and there is consequently a ready demand of cotton. Within the tahsil itself the only market towns are Nuh, Hathin and Taoru. The latter is connected by a poor sandy road with the town of Rewari, but I cannot find that there is any trade along it, as the people seem to deal entirely with their local bannias, and the latter find a ready market for their stock within the tahsil itself.

13. The figures for live-stock are given in Statement IV. Comparing columns 2 and 6 there has been a decrease in every circle, and a deduction must be made from the present figures on account of bulls. The position is worst in the Dahar Circle, while in the Bangar Circle the numbers have remained almost stationary, and there has actually been a slight increase in the number of ploughs. But the introduction of canal irrigation has had a great effect upon the prosperity of the people, and the position is not as good as might have been expected. The present condition of the tahsil is undoubtedly bad, but I doubt whether it is comparatively so bad as the figures indicate. The Taoru settlement figures for instance seem to be obviously too high. Even with their present numbers the people have more than is actually necessary for cultivation and can afford to sell at neighbouring fairs. But more extraordinary still is the decrease of ploughs in Taoru. This would seem to indicate an amount of distress which is very far from being the case, and I can find no satisfactory explanation of it. I therefore prefer to take the present figures by themselves without paying much regard to any increase or decrease they may indicate, as I do not think that much reliance can be placed upon this. In the Taoru Circle then we have an average of slightly under 16 acres of cultivation to a pair of bullocks, after making allowance for bulls. On this light soil this is a very small duty per plough, and, as might be expected, the people not only can afford to sell at neighbouring fairs but also lend to their poorer relatives in the Dahar Circle. In the latter place the shortage of plough cattle is terrible. Making allowance for bulls the average works out to 28½ acres to a pair of bullocks. On that heavy clay soil 12 acres would be by no means a low average, and the present figures are practically

twice as much. Moreover, the position now is if anything worse, as numbers of cattle died in 1905-06. The results are everywhere apparent. Land does not get nearly as much ploughing as it requires with the result that outturns suffer. Again, if a tendency to saltiness appears, a little care and frequent ploughing may do wonders, but nowadays such land is often given the same scanty attention with the result that one or two dry seasons are sufficient to cause very serious injury. The average for the Bangar Circle is the same as that for Taoru, 16 acres. This is about right for the class of soil, though in the canal tract a pair of bullocks probably do not work quite so much, as the land is very carefully prepared and the people can afford to keep as many as they require. The plough averages do not show any very great difference, 17, 24 and 16 acres being the averages for the three circles.

Turning to other animals, the number of cows is in all circles almost the same as that of bullocks. The proportion is lowest in the Bangar Circle where, however, many more cow-buffaloes are kept. The numbers of young stock are fair, though, as I remarked before, the present totals would probably be considerably lower. Taking the figures as they stand we may say that the numbers are quite sufficient having regard to the smallness of the grazing area. Sheep and goats are not usually kept by agricultural tribes. A certain amount of transport work is done by donkeys, but bullock-carts are generally used for this purpose, the number of camels being small.

14 The following table shows the totals of the general population at different periods:—

| 1 | | | 2 | 3 |
|------|-----|-----|------------|---------------------------|
| Year | | | Population | Incidence per square mile |
| 1848 | . | . | 95,999 | |
| 1868 | ... | . | 1,41,407 | |
| 1881 | .. | ... | 1,20,324 | 299 |
| 1883 | .. | ... | 1,15,870 | 288 |
| 1891 | | | 1,31,593 | 327 |
| 1901 | | | 1,45,931 | 362 |

Details by circles of the last three enumerations are given in Statement IV. The causes of the decrease in population between 1868 and 1883 are dealt with by Mr. Wilson in section 6 of his Revision Report. In the next 8 years an increase of 13 per cent is recorded, and the last census showed a further increase of 10 per cent. The present total is very little in excess of that recorded in 1868, but to appreciate the position correctly the details by circles must be examined. From them we see that the population in the Dahar Circle is still less than it was in 1881. This is the more astonishing as the drainage of the flooded lands has undoubtedly done much to improve the healthiness of the tract. Neither the soil nor the people appear able to make any headway against adverse conditions, and one or two bad years have an effect which only wears off very slowly. Most of the increase in population is in the Bangar Circle, though the Taoru figures are satisfactory.

The following places have been classed as towns:—

| | |
|-------|----------|
| Taoru | Ujina |
| Nuh | Ghasera. |
| Malab | Hathin |

Excluding their population and cultivated areas the incidence of the rural population per square mile of cultivation is:—

| | | | |
|--------|-----|-----|-----|
| Taoru | .. | . | 465 |
| Dahar | . | ... | 309 |
| Bangar | ... | ... | 417 |
| Total | | | 421 |

15. The usual form of tenure is imperfect *bhatachara*, as the following statement shows :—

| 1 | | | | 2 | 3 | 4 | 5 | 6 |
|--------------|-----|-----|----|-----------|-----------|------------|------------|-------|
| Circle. | | | | ZAMINDARI | | Pattidari. | Bhatachara | Total |
| | | | | Landlords | Communal. | | | |
| Taoru | ... | .. | .. | .. | 1 | 28 | 55 | 84 |
| Dahar | ... | ... | .. | 1 | 4 | 29 | 72 | 106 |
| Bangar | ... | ... | .. | ... | 8 | 24 | 72 | 99 |
| Total Tahsil | | | | 1 | 8 | 81 | 199 | 289 |

Statement XI shows that 58 per cent of the cultivated area is in the hands of the owners, and the average area per owner and the size of proprietary and *khudkasht* holdings is given below—

| 1 | | | | 2 | 3 | 4 |
|--------------|----|-----|----|---------------------------------|------------------------|-------------------------------------------|
| Circle. | | | | Average of proprietary holdings | Average area per owner | Average area of <i>khudkasht</i> holdings |
| | | | | | | |
| Taoru | .. | .. | .. | 10 1 | 8 | 3 4 |
| Dahar | .. | ... | .. | 5 4 | 7 | 2 2 |
| Bangar | .. | .. | .. | 8 0 | 7 | 3 0 |
| Total Tahsil | | | | 7 0 | 8 | 2 7 |

There are very few large owners. One or two villages were auctioned for failure to pay land revenue, and elsewhere large properties have come into the hands of mortgagees, but as a rule the land is owned by small peasant farmers. Their position is infinitely worse now than it was at last settlement. Then cultivation had recently increased and there was very little debt. The figures in the above table are for all cultivation, but if we exclude the area in the hands of mortgagees and of tenants who cultivate at revenue rates we find that the average area free for profit per owner is as follows.—

| | | | | | | | |
|--------------|-----|-----|----|-----|-----|-----|-----|
| Taoru | .. | .. | .. | .. | .. | .. | 5 5 |
| Dahar | ... | ... | .. | ... | ... | .. | 4 3 |
| Bangar | ... | .. | .. | .. | .. | ... | 4 7 |
| Total Tahsil | | | | | | | 4 7 |

Thus in spite of the fact that population has not greatly increased, and in the Dahar Circle indeed has remained almost stationary, the farmer is distinctly worse off for land than he was then. Omitting the canal tract I have no hesitation in saying that there is a general poverty throughout the tahsil, and with such a small unencumbered area I see no prospect of amelioration unless a series of exceptionally good years should come. The area under cash rents may seem to show that at present the scarcity of land is not severely felt, but a great deal of the cash rent is on mortgaged land while the few large owners all take cash rents as a matter of course. But besides this there are two reasons which make the small owner ready to let out part of his holding. Except in the Taoru Circle land requires a great deal of ploughing and there are very few cattle with which to do it. To some extent the farmer is often forced to let out his land, though as a rule he is not by any means unwilling to give up one or two fields. If the season is good he gets a fair rent, and in the Dahar and Bangar Circles the out-turns will be high and profits on the remaining portion will be large. On the other hand if the season is bad, he will not get any rent, but he will be no worse

off then if he had retained it, and if the succeeding harvest be good, he may recover some arrears of rent as well, thus he regards as clear gain. In spite therefore of a fairly large cash rented area I think there is throughout the tahsil a most serious scarcity of land with its inevitable result of poverty and inability to stand out against the failure of even a single harvest.

Statement V shows the distribution of ownership according to the main agricultural tribes. There is a large predominance of Meos, who taken as a whole are only fair cultivators. In some parts they are distinctly good, but they need to see quick and certain results of their work or else they get disheartened and lazy. In a village where Meos are found side by side with Ahirs or Jats the difference is surprising, though they never learn to adopt the thriftiness of those tribes. Next in importance as regards numbers are the Jats, who are mostly found in the canal tract. These and the few Ahirs are by far the best cultivators in the tahsil. All the available irrigation is carefully developed in their villages, and unremitting toil and care are bestowed to get the best value out of the land. The remaining tribes are all inferior. Rajputs, whether Hindu or Mussalman, are very indifferent. Owing to the strictness of their marriage rules they are rapidly decreasing in numbers, and as a rule in their villages holdings are large. Both Brahmans and Khanzadas are equally bad, but the Gujars are better. There are a few Mahajans and Kayisths, who are owners by purchase, and do not as a rule do any cultivating themselves. Occupancy tenants are generally Meos or Jats with a fair sprinkling of privileged Brahmans or Faqirs. Apart from these there is no proper tenant class, the tenants-at-will being generally owners cultivating either in some other village or under purchasers and mortgagees.

16 Statements VI and VII contain detailed statistics of transfers, while in the following table the present state of transfers is compared with that in existence at the time of settlement. The top figure is the percentage of the area transferred, and below is the price in even rupees —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------|-----------------------------------|-------------------|---------------------|--------------------|----------------|--------------------|
| Circle. | SALES | | | MORTGAGES | | |
| | Before 1857
to settle-
ment | Since settlement. | | At settle-
ment | Now | |
| | Total
area, | Total
area | Cultivated
area. | Total
area | Total
area, | Cultivated
area |
| | | | | | | |
| Taoru ... | 4
Rs 15 | 33
37 | 40
41 | 3 25
15 | 17 7
40 | 23 6
40 |
| Dahar ... | 18
Rs 10 | 75
19 | 62
29 | 12 9
21 | 30 8
40 | 37 9
41 |
| Bangar ... | 1
Rs 10 | 16
50 | 16
57 | 3 2
20 | 21 0
58 | 23 7
58 |
| Total ... | | 43
26 | 39
36 | — | 24 3
46 | 29 2
46 |

Of the sales 38 per cent and of the mortgages 63 per cent are to zamindars. The quinquennial statement shows that the worst period was from 1895-96 to 1899-1900. Except that there has been a slight falling off in the last periods (due in great measure to the Land Alienation Act, and also to some extent to the fact that there is very little land left to mortgage) the area sold and mortgaged has steadily increased. Not much reliance can be placed on the sale figures. Some of them are fictitious transactions, but the majority, I think, are small sales with a view to reducing mortgaged property.

The high proportion of sales in the Dahar Circle is a bad sign, as not only is the Meo habitually averse to parting with his land, but the size of holdings

great Sambhar Salt Lake would finally extinguish it. This has actually occurred, but so far from having a grievance against Government it would appear that the industry was for a long time bolstered up by Acts which conferred a monopoly upon it.

As in other tahsils, both pala and pula are found, but not in sufficiently large quantities to affect the tahsil as a whole. Allowance has been made for them in the village assessments in the few cases where the crop has been large enough to justify an enhanced assessment, but this has not often been the case, as it is generally used by the zamindar himself for fodder, and the surplus available for sale is small. No outside professions are taken up, the people as a whole being dependent on the land. Some Rajputs go out as soldiers, but the Meo is not popular as a recruit, nor does his inclination lie that way. He prefers not to leave his land unless forced to do so by poverty or some equally cogent reason, and then he does not as a rule return to his village at all.

CHAPTER III—CROP STATISTICS.

18. Detailed crop returns by soils for the years selected for the produce estimate are given in Statements VIII and IX. They only shew the cropping on the settlement areas as modified by the patwaris at crop inspections. This is important in the dahri and abri classification, where I suspect that the areas have been over-estimated. The entries of nahri may be regarded as fairly correct, and in other respects there has been very little change.

19. Statement X shows the area matured at each harvest in the various circles during the 21 years 1885-86 to 1905-06, with quinquennial averages. In the Taoru Circle the average is wonderfully high. This is due to the character of the soil, which is light and hardy. Not only is less rain required, but it is capable of withstanding drought for a longer period than the heavy soils. Moreover, most of the land is used for autumn crops, and as, even in a dry year, it is unusual for the monsoon to be a total failure there is always hope of obtaining at least a moderate harvest in the *rabi* except well-irrigated crops very little is attempted, and as the water is sweet the results are fairly good. In the Dahar Circle on the other hand the cultivation is extremely precarious. The soil is heavy, and requires a thorough soaking, though in many parts owing to the prevalence of kallar it is not good to have water standing for any length of time. The small matured percentage shows the difficulties with which the cultivators have to contend, as either excess or defect in the rainfall has a serious effect on the harvest. In the Bangar Circle the high matured percentage is due, not to the intrinsic character of the soil, but to the fact of canal irrigation, which protects a very large area. It will be shown elsewhere that this protection has probably been to some extent exaggerated, and that a larger failed area ought to have been allowed, but for the present it is sufficient to point to the irrigation as mainly responsible for the matured percentage.

Turning to the average for the five years selected for the Produce Estimate it will be seen that in Taoru it agrees almost exactly with the average of the 21 years. In the Dahar Circle it is 6 per cent below, and in the Bangar Circle $4\frac{1}{2}$ per cent above the average. The explanation in each case is, I think, to be found in the dryness of the seasons.

Statement I shows that in 4 out of the 5 years the rainfall has been below the average. In the Dahar Circle this has had a very perceptible effect. The heavy land, which has been accustomed to get a thorough soaking has become hard and dry, and in many cases the resources of the cultivators have not been sufficient to enable them to plough such land with bullocks few in number and weakened by want of sufficient fodder. In the Bangar Circle, on the other hand, the effect has been to extend the demand for canal irrigation, and thus increase the protected area.

20. The following statement shows in percentages the average area of each important crop sown, matured, and failed on 100 acres of each class of land during the years selected for the Produce Estimate:—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------------|-----------------|------|------------------|-----|------------------|------|------------------|---------|
| Crops | TAORU | | DAHAR. | | BANGAR | | Total | TAHSIL. |
| | Settle-
ment | Now. | Settle-
ment. | Now | Settle-
ment. | Now. | Settle-
ment. | Now |
| Jowar | 1 | 2 | 16 | 10 | 31 | 12 | 19 | 9 |
| Bayra | 73 | 46 | 19 | 24 | 24 | 26 | 32 | 30 |
| Mung | ... | 5 | ... | 2 | ... | 2 | .. | 2 |
| Moth | 1 | 1 | ... | 1 | 3 | 1 | 1 | 1 |
| Til | ... | ... | ... | 1 | ... | 1 | ... | 1 |
| Chaula | ... | 8 | ... | ... | ... | ... | ... | 2 |
| Cotton | 3 | 3 | 14 | 10 | 11 | 13 | 10 | 10 |
| Wheat | 2 | 1 | 26 | 4 | ... | 4 | 11 | 4 |
| Barley | 9 | 9 | 7 | 9 | 6 | 13 | 7 | 11 |
| Gram | 6 | 7 | 3 | 9 | 10 | 12 | 6 | 10 |
| Mixtures | 1 | 2 | 7 | 9 | ... | 2 | 3 | 4 |
| Sarson | ... | 1 | ... | 4 | ... | 2 | .. | 2 |
| Tara | ... | 1 | ... | 1 | ... | 1 | ... | ... |
| Guar | ... | 10 | 1 | 7 | 1 | 7 | 1 | ... |
| Charri | ... | 1 | ... | 6 | ... | 2 | ... | 3 |
| Others | 2 | 3 | ... | 3 | ... | 1 | 2 | 2 |
| Bejhar | 2 | ... | 5 | ... | 14 | ... | 8 | ... |
| Vegetables | ... | ... | 1 | ... | ... | ... | ... | ... |
| Rice | ... | ... | 1 | ... | ... | ... | ... | ... |
| Sugarcane | ... | ... | ... | ... | ... | 1 | ... | ... |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

21 The characteristic agriculture of the tahsil is that practised on the

The system of cultivation

flooded and unirrigated lands in the Dahar and Bangar Circles. In the Taoru Circle the soil is sandy and the cultivation resembles that adopted in Rewari. Barley is the chief irrigated crop, the soil being too light for wheat as a rule; moreover wheat requires more water and care generally, and with the exception of the Ahirs the people are not sufficiently industrious to grow it. Gochni is grown on the best abli land, but the area is small. The only other irrigated crops are tobacco and zira, and the fodder crops kasni and carrots. The wells are not used for the autumn crops, except to grow a little charri. On the irrigated land the main crops are bajra mixed with pulses in the autumn and dofashi gram (if conditions are favourable) in the spring. A little cotton and juar are also grown on flooded land. As regards the method of preparing the soil, the time of sowing, and the amount of seed sown there is nothing to alter in the description already given for Rewari. For the same reasons I do not propose to give a detailed account of the nahri cultivation. The Hathni Circle, where all the canal irrigation is found, adjoins the Palwal Tahsil, and naturally the two systems are the same

On flooded lands the main crop is wheat. The best land is sown with wheat alone. Seed is liberally given, 30 sers being the usual though at the same time the minimum quantity. Provided that there is sufficient rain to bring down the floods the same land can be grown to a wheat crop year after year. Manure is given every third or fourth year, but the main essential is that the land should be properly ploughed. Not only is the soil a stiff clay, but frequent flooding adds to its original hardness, and the more it is broken up the better. This of course can only be done when it has been moistened by rain, and consequently the importance of the rainfall to this land cannot be over-estimated. It requires a good flooding during the monsoon, and yet the water must dry up sufficiently quickly to enable the land to be ploughed at the proper time. The same remarks apply to the cultivation of gochni on the less heavily flooded land. As to bejhar, although the cropping returns show a

great deal of this crop on flooded land, it merely means that the field has not received sufficient flood water to make any appreciable difference, and is frequently a sign that the flooded area has been over-estimated. So far I have only dealt with the spring crop. As may be imagined the land that is regularly flooded during the monsoon is not of much use for growing an autumn crop, but jwar, bajra, cotton, and occasionally melons, are found. To some extent the remarks made above about over-estimating the area apply here also. Autumn crops are grown on land which, though classed as flooded, does not under normal circumstances get enough flooding to injure a standing crop. But this is not the only reason. It often happens that some of the flooded land has not been available for a wheat crop owing to excessive flooding or drought. Under these circumstances if the zamindar waits for a year to get a spring crop, he not only loses all the benefit of the flooding, but even then will get nothing off his land if the season is abnormally wet or dry. He therefore grows an autumn crop to be on the safe side. If the rains are light, he has utilised the winter flooding and got a crop off his land—possibly a very good cotton crop if not, he only loses his seed, and can sow wheat.

The chief difference in the case of unirrigated land is that more rest is required, and even with favourable conditions a spring crop could not be grown regularly year after year on the same field. Cultivation is too dependent on the rainfall to admit of any definite system of rotation being employed, but bejhar and gochni, the two chief crops, are as a rule grown on land that has lain fallow for two harvests. The following is the rotation which the zamindars say is best, but actually it is very rarely found —

| <i>Autumn.</i> | <i>Spring</i> |
|----------------|---------------|
| Juar | Fallow |
| Cotton | Fallow |
| Bajra | Dofash gram. |
| Bajra. | Fallow |
| Fallow | Bejhar |

If this system were adhered to there would be a much larger area under autumn than under spring crops, of course the preponderance is this way, but the proportion is not so great, the reason being that with an uncertain rainfall and insufficient cattle it is impossible to get the fields always under a crop, but if the conditions look likely to be good for a spring crop, every effort is made to use all the available fallow land. As regards the crops grown, bejhar is by far the most common spring crop. As a rule two parts of barley are sown to one of gram, the total amount being 25 or 30 sers. Gochni is only grown on the lowlying land that gets some additional moisture. Sarson is sown in the lines of these two crops. Gram is also a popular crop. If there are good September rains, it is sown as second crop after bajra, if the rains are light, it is put in fields that do not contain sufficient moisture to enable barley to be sown. The crop neither requires nor it is benefited by very much rain but on the contrary is liable to be damaged by late winter rain with thunderstorms. I have not given any details of the number of ploughings, as this depends chiefly on the cattle available. The land is so heavy that it cannot be ploughed too often, and the difficulty is to get the necessary bullocks, as the people are very badly off in this respect at present.

22 The appended statement shows the areas under all the most important crops in the various circles at settlement and now. In Taoru the apparent difference in the bajra areas is accounted for by the fact that pulses were not separately recorded then but were shown as bajra. The present total of bajra and pulses is 70 per cent so there has been no real change. The remaining figures are all very similar. In the Dahar Circle the area under jowar has decreased, but the total of autumn cereals is considerably larger than before. This is probably due to the recent bad seasons, and to the fact that the flooded area is smaller than it used to be. Both these causes would tend to increase the area under autumn crops. Cotton requires good rain at sowing time, and as this is not always available the increase has appeared in the cereals and not in the more valuable crop. The settlement percentage of cotton looks as if it was an over-

Changes of cropping.

estimate, but during village inspections I have frequently found that Mr. Channing has noted on the very fine crops of cotton grown in a village which now hardly ever produces any at all. The great decrease in the area under wheat is also attributable to the same cause. The wheat area fluctuates according to the seasons, and we may safely say that neither set of figures represents a true average, the settlement figures being too high, while the present area is undoubtedly too small. It should be noticed that the present figures for gram include bejhar, for which no separate column has been allotted in the records. In the Bangar Circle the introduction of canal irrigation has caused a very real change in the cropping, which is hardly brought out by the figures. The area under cotton is almost the same although there has really been a great development since the advent of the canal. This must mean that the area was very much over-estimated at last settlement. On the other hand there has been a change in the jowar cropping which is rather hard to understand. To some extent the canal is responsible, as there is not such need for autumn fodder as there used to be, and jowar does not answer on canal land, it is however clear that the settlement entries include charu, which was not recorded at all. The bajra percentages show that it is not a case here, as it is in the Dahar Circle, of jowar being given up for bajra. The percentage of wheat is small, but it is not grown on unirrigated land at all, and there is no flooding to speak of in this circle.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-------------------|------------------------|-----------------------|---------------------|--------|------|--------|----------------|--------------------|--------|--------|--------|--------|
| Assessment Circle | Harvest | Crops | AREA IN PERCENTAGES | | | | | | | | | |
| | | | Chahl | Nahrif | Abi | Dahrif | Abi and Dahrif | Chiknot and Narmot | Narmot | Magda | Bhur | Total |
| TAONIA | Kharif | Jorar | 19 | | | | 2 85 | | 5 00 | 2 73 | 1 16 | 2 14 |
| | | Bajra | 01 | | | | 37 65 | | 48 14 | 55 71 | 49 14 | 46 27 |
| | | Mung | | | | | 2 55 | | 7 06 | 5 75 | 5 71 | 4 89 |
| | | Moth | | | | | 1 07 | | 3 46 | 1 48 | 1 09 | 1 40 |
| | | Guar | | | | | 13 87 | | 13 71 | 11 90 | 11 91 | 10 09 |
| | | Chaula | | | | | 2 37 | | 9 50 | 9 00 | 13 59 | 8 45 |
| | | Cotton | 70 | | | | 1 80 | | 5 14 | 3 49 | 97 | 2 59 |
| | | Chari | 17 | | | | 95 | | 4 30 | 1 21 | 49 | 98 |
| | | Vegetables | 31 | | | | | | | 04 | | 07 |
| | | Others | 32 | | | | 30 | | 1 41 | 1 07 | 30 | 81 |
| | | Total crops harvested | 173 | | | | 64 24 | | 97 81 | 92 38 | 85 26 | 77 69 |
| | | Total area failed | | | | | 12 11 | | 12 84 | 6 61 | 10 54 | 6 85 |
| | | Total area sown | 173 | | | | 66 35 | | 10 65 | 98 99 | 95 80 | 84 54 |
| | Pabi | Wheat | 7 04 | | | | 6 58 | | 1 41 | 24 | 29 | 1 42 |
| | | Barley | 42 15 | | | | 8 13 | | 6 42 | 3 87 | 1 75 | 8 69 |
| | | Gram | 26 | | | | 7 24 | | 13 86 | 10 08 | 3 02 | 7 39 |
| | | Sarson | 2 21 | | | | 1 71 | | 1 80 | 73 | 39 | 91 |
| | | Tara | 15 | | | | 42 | | 1 54 | 69 | 22 | 53 |
| | | Others | 8 45 | | | | 15 61 | | 11 81 | 1 03 | 1 52 | 2 90 |
| | Total of both harvests | Total crops harvested | 60 26 | | | | 39 61 | | 36 81 | 16 64 | 7 19 | 21 84 |
| | | Total area failed | 96 | | | | 10 86 | | 16 82 | 9 10 | 6 69 | 7 80 |
| | | Total area sown | 61 24 | | | | 50 50 | | 53 60 | 25 74 | 13 85 | 29 64 |
| | | Total crops harvested | 61 96 | | | | 93 85 | | 124 65 | 109 02 | 92 45 | 99 53 |
| | | Total area failed | 85 | | | | 22 97 | | 29 66 | 15 71 | 17 23 | 14 65 |
| | | Total area sown | 62 07 | | | | 116 85 | | 164 31 | 124 73 | 108 68 | 114 18 |
| Daura | Kharif | Jorar | 10 | | 60 | 1 60 | | 15 98 | | 5 41 | 1 15 | 7 33 |
| | | Bajra | | | 39 | 1 14 | | 25 84 | | 33 00 | 89 12 | 17 75 |
| | | Other cereals | 03 | | 02 | 09 | | 50 | | 26 | 12 | 26 |
| | | Mung | | | 02 | 06 | | 1 09 | | 2 01 | 1 80 | 1 17 |
| | | Guar | | | 11 | 31 | | 7 10 | | 11 09 | 12 09 | 5 38 |
| | | Other pulses | | | | 09 | | 1 15 | | 2 36 | 2 07 | 1 02 |
| | | Cotton | 24 | | 14 | 1 92 | | 14 41 | | 9 95 | 2 06 | 7 37 |
| | | Chari | 13 | | 05 | 41 | | 6 39 | | 4 35 | 1 73 | 3 07 |
| | | Others | 81 | | 07 | 05 | | 2 13 | | 1 10 | 29 | 1 02 |
| | | Total area harvested | 134 | | 1 44 | 5 71 | | 77 53 | | 70 19 | 62 22 | 45 27 |
| | | Total area failed | 03 | | 2 25 | 3 42 | | 19 17 | | 16 31 | 18 39 | 12 21 |
| | | Total area sown | 127 | | 4 72 | 9 13 | | 96 70 | | 86 50 | 80 61 | 57 49 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---------------|------------------------|--------------------------|---------------------|-------|-------|-------|---------------|---------------------|--------|--------|--------|--------|
| Assessment | Harvest. | Crops | AREA IN PERCENTAGES | | | | | | | | | |
| | | | Ohahi | Nahri | Abi | Dahri | Abi and Dahri | Chicknot and Narmot | Narmot | Magda | Bhur | Total |
| DAHAR—concl'd | Rabi | Wheat | 7 16 | | 3 63 | 4 64 | | 2 75 | | 2 38 | 2 01 | 3 42 |
| | | Barley | 32 64 | | 2 78 | 2 17 | | 7 98 | | 9 46 | 5 48 | 6 65 |
| | | Gram | 13 | | 2 81 | 1 90 | | 14 30 | | 5 81 | 1 65 | 7 04 |
| | | Other cereals and pulses | 2 66 | | 10 10 | 6 69 | | 8 29 | | 3 86 | 2 15 | 6 67 |
| | | Sarson | 87 | | 99 | 99 | | 4 91 | | 2 44 | 89 | 2 64 |
| | | Tara | | | 03 | 34 | | 89 | | 1 17 | 58 | 62 |
| | | Others | 5 18 | | 26 | 95 | | 05 | | 02 | 01 | 51 |
| | | Total area harvested | 48 64 | | 20 60 | 17 68 | | 39 16 | | 25 14 | 12 87 | 27 55 |
| | | Total area failed | 2 45 | | 2 21 | 3 48 | | 20 13 | | 14 77 | 10 44 | 11 61 |
| | | Total area sown | 51 09 | | 22 81 | 21 16 | | 59 28 | | 39 91 | 28 31 | 89 16 |
| | Total of both harvests | Total area harvest | 49 98 | | 22 04 | 23 39 | | 116 69 | | 95 38 | 75 09 | 72 82 |
| | | Total area failed | 2 48 | | 5 49 | 6 90 | | 89 80 | | 91 08 | 28 83 | 23 82 |
| | | Total area sown | 52 46 | | 27 53 | 30 29 | | 150 99 | | 126 41 | 103 92 | 96 64 |
| RANJAR | Kharif | Jowar | | 63 | 10 | | | 21 61 | | 6 80 | 4 13 | 11 62 |
| | | Bajra | | 03 | 21 | | | 35 53 | | 40 56 | 85 28 | 24 16 |
| | | Mung | | 01 | | | | 2 78 | | 2 68 | 1 96 | 1 78 |
| | | Moth | | 20 | | | | 1 27 | | 2 69 | 4 07 | 1 28 |
| | | Guar | | 23 | 21 | | | 9 93 | | 7 62 | 7 86 | 6 27 |
| | | Other cereals and pulses | 06 | 55 | 10 | | | 1 02 | | 49 | 42 | 7 3 |
| | | Sesamum | | 25 | | | | 1 48 | | 80 | 33 | 89 |
| | | Sugarcane | | 4 96 | | | | 02 | | 01 | | 1 34 |
| | | Cotton | 14 | 28 56 | | | | 8 99 | | 5 82 | 2 41 | 12 25 |
| | | Fodder | | 60 | | | | 3 30 | | 1 43 | 53 | 1 94 |
| | | Others | 25 | 1 71 | | | | 54 | | 24 | 06 | 76 |
| | | Total area harvested | 45 | 35 79 | 62 | | | 86 4 | | 69 14 | 57 07 | 63 02 |
| | | Total area failed | | 28 | 1 25 | | | 8 61 | | 7 14 | 9 57 | 5 74 |
| | | Total area sown | 45 | 36 07 | 1 87 | | | 95 08 | | 76 28 | 68 64 | 68 76 |
| | Rabi | Wheat | 8 49 | 11 87 | 3 02 | | | 65 | | 09 | 04 | 4 01 |
| | | Barley | 28 61 | 11 18 | 62 | | | 10 97 | | 14 49 | 13 42 | 12 45 |
| | | Gram | 29 | 7 75 | 32 | | | 15 36 | | 11 77 | 5 29 | 11 14 |
| | | Other cereals and pulses | 2 71 | 4 89 | 8 95 | | | 59 | | 31 | 14 | 1 83 |
| | | Sarson | 184 | 1 49 | 62 | | | 1 83 | | 2 10 | 2 18 | 1 78 |
| | | Tara | | | | | | 1 5 | | 24 | 16 | 11 |
| | | Others | 1 97 | 92 | | | | 02 | | | | 37 |
| | | Total area harvested | 43 91 | 38 05 | 8 53 | | | 29 57 | | 29 00 | 21 88 | 31 69 |
| | | Total area failed | 92 | 87 | 73 | | | 13 39 | | 13 10 | 12 55 | 9 11 |
| | | Total area sown | 44 83 | 88 92 | 9 26 | | | 42 96 | | 42 10 | 32 73 | 40 80 |
| | Total of both crops | Total area harvested | 44 36 | 78 84 | 9 15 | | | 116 04 | | 98 14 | 78 25 | 94 71 |
| | | Total area failed | 92 | 1 15 | 1 99 | | | 22 00 | | 20 24 | 22 12 | 14 85 |
| | | Total area sown | 45 28 | 74 99 | 11 13 | | | 138 04 | | 118 88 | 100 37 | 109 56 |

CHAPTER IV.—RENTS AND TENANCIES

23. The following statement shows the percentage on the total cultivation of land held by the owners themselves and by the various classes of tenants —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------|--------------------------------------------|------|----------------------------------|------|------------|-----|--------------------------------|------|------------|------|
| Circle | CULTIVATED BY THE OWNERS OR HELD RENT FREE | | HELD BY OCCUPANCY TENANTS PAYING | | | | HELD BY TENANTS AT-WILL PAYING | | | |
| | | | Cash rent | | Kind rent | | Cash rent | | Kind rent | |
| | Settlement | Now | Settlement | Now | Settlement | Now | Settlement | Now | Settlement | Now |
| Taoru | 62.2 | 60.9 | 12.6 | 11.7 | | | 22.8 | 24.3 | 2.4 | 3.1 |
| Dahar | 70.0 | 56.3 | 7.1 | 6.8 | 1 | | 21.5 | 25.9 | 1.3 | 11.0 |
| Bangar .. | 63.8 | 62.4 | 7.1 | 9.0 | | | 29.0 | 21.6 | 1 | 7.0 |
| Total | 66.0 | 59.7 | 8.1 | 8.7 | 0.4 | | 24.86 | 23.8 | | 8.7 |

The above figures do not indicate any great changes in the proportion of land let out or in the character of the tenancies. The Dahar Circle is the only one where the owners' cultivation has been seriously curtailed. The increasing popularity of kind rents throughout the tahsil also deserves mention. Both features are the direct result of the bad seasons, though the latter is of quite recent growth, whereas the former can be traced back to the famine of 1878. Tenants are of the usual kinds. The form of partnership on well lands in vogue throughout the district is extremely common in this tahsil. If it becomes necessary to work the wells an owner is generally obliged to take in his tenants as partners, as otherwise he would not be able to afford the expense, nor probably has he sufficient bullocks. In such cases no difference is made in a cash rent, but the rate for kind rents is lowered to $\frac{1}{3}$ rd. The form of partnership is the same as in Rewari.

24. Statement XI shows the rates at which kind rents are paid. The figures indicate an overwhelming preponderance of payments at $\frac{1}{2}$ on both unirrigated and irrigated lands. In the case of well lands however the statistics are misleading. The explanation given above about partnerships shows how in the Dahar and Bangar Circles owing to the peculiar circumstances $\frac{1}{2}$ may be agreed on but not paid if the well is used. In the Taoru Circle, where irrigation is regular, batai is most unusual on well lands that are being watered, but not nearly so rare in the case of well lands on which an unirrigated crop is to be grown. The difference is fairly represented by the areas in the two columns of $\frac{1}{2}$ and $\frac{1}{2}$, and when actual instances were examined it was found that the irrigation rate was always $\frac{1}{2}$ and not $\frac{1}{2}$. On canal land the rate is $\frac{1}{2}$, but it is usual to find that all expenses are shared in the same proportion. In the case of sugarcane cultivation this indicates a difference from the practice prevalent in the Palwal Tahsil, but it is merely a difference of detail. The landlord is made to share in other expenses which were not included when the rate was $\frac{1}{2}$, and the result is almost exactly the same. I have accordingly adopted the calculations given in the Palwal Report for this tahsil. The cost of cultivating an acre is Rs 22 and the canal dues as shown in paragraph 11 (b) amount to Rs 8-13-0. On all unirrigated land $\frac{1}{2}$ is regularly taken, and a share of the straw as well, the tenant being expected to pay the kamins. These conditions are extraordinarily severe. In the adjoining Tijara

Tahsil of Alwar the figures given in section 115 of Mr. O'Dwyer's Report show that rates of $\frac{1}{3}$ and $\frac{1}{2}$ were taken in almost equal proportions. This however was the only tahsil out of the five dealt with in that Report in which this state of things existed, and the rate adopted for the Produce Estimate was $\frac{2}{5}$. As might be expected under these circumstances the area under produce rents is not large. It has however increased since last settlement, when both Mr Channing and Mr. Wilson found this class of rent almost unknown. The rate too has risen as the following table shows —

| | 1 | 2 | 3 | 4 | 5 |
|------------|-----|------|-----------|-----------|------------|
| | | Half | Two-fifth | One-third | One-fourth |
| Settlement | ... | 177 | | 823 | |
| Now | .. | 913 | 15 | 68 | 4 |

With such a small area it seems reasonable to suppose that only the worst land was so rented, and consequently a low rent was taken. At the present time there is a decided leaning towards produce rents. The tenants clamour for them because they have not had a really good harvest for so long, and when this does come it is certain that the landlord will try to get back a portion at any rate of the arrears if the land is cash rented. Probably the total amount so collected does not exceed $\frac{1}{2}$ the produce, but the cultivator likes to feel that if nothing matures he will not have arrears of rent to pay in addition to his other expenses. Where the character of the soil is so even a slight increase in the popularity of a rent is sufficient to bring the better soil under its influence, and this in itself would tend to raise the rate and so retain the popularity of cash rents. Lastly, there is the influence of competition. Though population has not increased to any great extent since last settlement yet the poverty of which this is one sign has led to a good deal of mortgage, and there is now a very real scarcity of unencumbered land. The original owner must cultivate to keep alive, and as a rule he stops on as a tenant paying a high rent.

The result of all these influences has been that the area under kind rents is almost all paying at the high rate. I have therefore accepted it for the produce estimate, but it does not mean that the resulting standard would be a fair one to levy from the owners and occupancy tenants, who together cultivate 68.6 per cent.

There are no zabti rents at all in this tahsil, but as there is a small area under crops, for which as a rule a cash value is taken, I have made assumptions for the purposes of the Produce Estimate. The area is not sufficiently large to affect the general result, and the assumed values may be taken as fairly representative.

25 The table in paragraph 23 shows the area cultivated by tenants-at-will paying cash rents. Sixty per cent of this is in the hands of tenants paying at other than revenue rates, and these form the basis of a cash rent estimate. Mr. Channing in his Nuh Report section 26 says "Competition rents are very rare. Seventy per cent of the lands held on cash rents are at revenue rates only, so that I have not been able to give much weight to the prevailing rent rates in framing my assessments. I have however selected a few villages in each circle in which rents other than customary seemed to prevail, and analyzed their rates." It is difficult to see exactly what plan was adopted. The average rents given by Mr. Channing seem to be far below his rates, but when dealing with the various circles he compares an assessment at his assumed rates with that given by half the cash rents in the selected villages and the difference though still considerable is not so great as the figures in section 26 lead one to expect, while in the Taoru Circle the two sets of figures are almost identical. However no use was made of them in assessing, and it is more important to

note that at revision 6 per cent of the total cultivated area paid cash rents not directly dependent on the revenue rate at an average of Rs 2 per acre. This proportion has risen to 9 per cent, but the 60 per cent shown as cultivated by the owners includes a great deal of mortgaged land cultivated by the mortgagor at a high cash rent. The following statement shows the area paying a cash rent with the rate per acre at revision and yearly from 1891-92 to the present day:—

| 1 | 2 | 3 | 4 | 5 | 6 |
|-----------|---------------|--------|-----------|-------------|-------|
| Year | Area in acres | Rent | Rate on | | Total |
| | | | Irrigated | Unirrigated | |
| | | Rs | Rs a | Rs a | Rs a |
| 1891-92 | 25,523 | 64,580 | | | 2 8 |
| 1892-93 | 26,940 | 69,553 | . | . | 2 9 |
| 1893-94 | 27,711 | 73,013 | .. | | 2 10 |
| 1894-95 | 28,301 | 76,380 | 4 0 | 2 8 | 2 11 |
| 1895-96 | 28,750 | 78,813 | 2 13 | 2 12 | 2 12 |
| 1896-97 | 28,817 | 80,372 | 3 10 | 2 10 | 2 13 |
| 1897-98 | 29,952 | 84,721 | 4 4 | 2 9 | 2 13 |
| 1898-99 | 29,979 | 89,192 | 4 11 | 2 11 | 3 0 |
| 1899-1900 | 30,112 | 88,654 | 4 9 | 2 10 | 2 15 |
| 1900-01 | 28,822 | 86,776 | 4 9 | 2 11 | 3 0 |
| 1901-02 | 29,077 | 92,415 | 5 8 | 2 11 | 3 3 |
| 1902-03 | 29,983 | 98,110 | 3 15 | 3 2 | 3 4 |
| 1903-04 | 29,980 | 96,673 | 3 15 | 3 2 | 3 4 |
| 1904-05 | 29,883 | 96,359 | 3 15 | 3 2 | 3 4 |
| 1905-06 | 30,316 | 98,985 | 3 12 | 3 3 | 3 4 |

The statement shows that a very extraordinary change has taken place during the past five years. Up to the year 1902-03 there was a marked difference between the irrigated and unirrigated rates, but since then there has been a close approximation between the two classes. In the Dahai Circle there is no difference now at all, and in the Bangar Circle the two rents are nearly the same. The regular well irrigation in the Taoru Circle has prevented it from being affected by this. The real fact appears to be that in the other two circles land is let out in May before it is known whether it will be irrigated or not, if it becomes necessary to work the wells, it means that the season is not good, and with the scarcity of bullocks and poverty prevalent throughout the circles the owner prefers to get what help he can from the tenant in working the well, and no extra rent is charged. Moreover, the owner knows that in a bad year the only chance of getting a crop at all is to irrigate the field, and unless this is done he will not be paid any rent whatever.

Turning to the method of analysing the existing rents I quote the following description from the Rewari Report: "The rents in sub-heads (d) and (g) of the Rent Statement are of course the only ones capable of affording data for a cash rent assessment. These were first divided into mixed rents and the

rents paid on single classes of land, and each of these divisions was then further sub-divided into—

- (a) Rents paid by mortgagors to mortgagees.
- (b) Rents paid by tenants-at-will to mortgagees
- (c) Rents paid by tenants-at-will to owners.
- (d) Rents paid by sahjis to owners "

The majority of rents belong to class (c), and it is there alone that the genuine competitive rents can be found in any quantity. Rents in class (a) were usually rack rents or else included a payment of interest on the loan, and so had to be rejected. Those in class (b) varied a good deal: sometimes they were exorbitant but on the whole they did not differ very much from those taken by owners. Those in class (d) were as a rule too low. The usual kinds of abnormal rents were met with and rejected at village inspections. In the Taoru Circle cash rents are not common, and no customary rate for land was admitted. In the Dahar and Bangar Circles however it was usual to find a customary rate of Rs 2-8 or Rs 3 per bigha on all soils except bhur, for which no such rate existed. Wherever kallar is found in a field to any extent it was invariably regarded as a good reason for taking a lower rent, and if the field was really bad a very considerable difference would be made. On the other hand with the exception of rack rents it was unusual to find the customary rate exceeded. The result is that the total rents work out somewhat lower than the customary rate though the latter is always used as a guide in determining the rent of average fields.

Statement XV shows the area under true cash rents after the elimination of abnormal rents. The tendency to be below the customary rate rather than above it is slightly more evident. This shows that the proportion of rack rents rejected was greater than that of small payments by privileged tenants, and this is undoubtedly the case throughout the tahsil. With the present poverty privileged tenancies are rare. Those who could have established occupancy rights, and the remainder have been forced to pay at the usual rate or else give up the land. I do not think there is any doubt that the rents represent the true letting value of land. In the Dahar and Bangar Circles the soil is most extraordinarily uniform in character, the only difference as a rule being one of saltiness. With such a large proportion of mortgagee's rents we may feel confident that good as well as bad land has been let out, and this in conjunction with the uniformity already noticed suffice to make the cash rents more representative of general conditions than the small proportion of land so rented might seem to warrant. By this I do not mean to say that the rents as they stand represent a fair letting value of land, and consequently a fair basis for assessment. On the contrary I think they are far too high, but there is no doubt that any one wishing to let out an average field can count on obtaining a tenant at these rates, and similarly there is no doubt that a man wishing to cultivate a normal field will, unless special reasons exist to the contrary, have to pay at a rate closely approximating to that shown in the statement. This state of affairs has been induced by the circumstances of the tahsil. The reasons which have led to the great increase in transfers have been already noted, but the effect of this upon rents cannot be too strongly emphasised. With only a small amount of land at their disposal, and practically no culturable waste to fall back on, the people have been obliged to sell and mortgage until each owner has a very small property left unencumbered. A keen competition has been set up, and the owners—following the lead of the mortgagees—exact high cash rents for their land. These rents obviously could not be paid in a bad year, and this was everywhere admitted by owners and tenants alike. There are very few large owners in the tahsil, and hardly any of these keep accounts, but when inspecting the village of Hirantbala the Kayasth owners showed me their books. According to the Government papers the rental is Rs 3,136, but the average collections for 16 years are only Rs 2,360, or 75 per cent. The property is well and carefully managed, and every effort is made both by the owners and their agent to keep up cultivation and get the maximum value out of it. As an additional incentive to this I may mention that in spite of bad harvests they have never been held to require any relief, and the full Government revenue has invariably been exacted. We may therefore feel sure that no undue leniency has been displayed by them to their tenants.

The following table compares the rates of cash rents paid on the various classes of soil before and after the elimination of abnormal rents in the villages that have been inspected.—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------|-----------------|--------|--------|--------|---------|---------|---------|
| Circles | Rents | Chahi | Nahri | Abi | Dahri | Barani | Bhur |
| | | Rs a p | Rs a p | Rs a p | Rs a p | Rs a. p | Rs a p |
| Taoru | Total rents | 5 6 11 | | 3 5 4 | 3 4 0 | 2 6 11 | 1 8 8 |
| | Corrected rents | 5 2 0 | | 3 1 0 | 3 2 0 | 2 5 8 | 1 6 0 |
| Dahar | Total rents | 4 1 7 | | 3 14 1 | 4 0 1 | 4 4 6 | 2 9 7 |
| | Corrected rents | 3 14 0 | | 3 13 0 | 3 15 0 | 4 1 0 | 2 10 0 |
| Bangar | Total rents | 4 7 7 | 3 4 11 | | 2 4 0 | 3 8 7 | 1 12 10 |
| | Corrected rents | 4 6 0 | 2 12 0 | | 3 0 0 | 3 4 4 | 1 11 0 |
| Total Tahsil | Total rents | 4 14 7 | 3 4 11 | 3 13 5 | 3 15 11 | 3 6 9 | 1 15 8 |
| | Corrected rents | 4 10 0 | 2 12 0 | 3 11 0 | 3 14 0 | 3 5 1 | 1 14 0 |

The general result of the analysis has been to slightly lower the rate on all soils. This is because owing to the scarcity of land there are very few tenants at privileged rates, while on the other hand the tendency towards charging excessively high rents is most pronounced. The nahri rents, as I have pointed out elsewhere, are quite unreliable. Practically all are paid in two large villages in which no change in the rate has been made in spite of the introduction of canal irrigation. To have eliminated these would have meant that only a few acres of nahri rents could have been shown, and in neither case could the results have been accepted as a fair test of the rent of this class of land. I therefore retained all these rents and only eliminated a few rents which were extraordinarily severe. There can be no doubt that the rents have been falsified in both these villages and it is unfortunate that there are not enough cash rents elsewhere in the tahsil to give an idea of what the proper rate should be. I have neglected the nahri rents altogether and am applying the chahi rate to the nahri area for the purposes of the cash rent estimate. Unfortunately well irrigation in this circle is inferior and the result is that the cash rent estimate is unduly low. Chiknot, narmot and magda have been classed together as barani as the differences between the various rates are so slight as to be negligible.

CHAPTER V—HALF-NET-ASSETS BASED ON BATAI

26 The years selected for the produce estimate are the years 1898-99 to 1903-04 excluding the famine year

Character of the selected harvests

1899-1900 The spring harvests have

been almost uniformly bad, but the matured percentage of the five years is 87, which is only slightly below that of the 21 years. The character of the harvests is given below.—

Kharif 1898—The monsoon was delayed, but there were fair rains in July and August, which allowed sowings to be made. Unfortunately the September rains failed, and the harvest was not so good as at one time appeared likely.

Rabi 1899—A fairly large area was sown but the winter rains failed, and the harvest was not good. A little rain in December and February saved the situation, and eventually the harvest was about average.

Kharif 1900—There were abundant monsoon rains, very well distributed and the harvest was consequently above the average.

Rabi 1901—The rains in September and October were favourable for sowings, and a large area was got ready. Conditions were good throughout, and a splendid crop was obtained.

Kharif 1901.—Good rain in June permitted extensive sowings to be undertaken, and with moderate conditions in July and August the prospects were good. The failure of the September rains however altered the position, and there was eventually an average harvest.

Rabi 1902.—Sowings were rather restricted, and as no rain fell between October and April the result was disastrous, the failed area being almost as large as that matured. The conditions were especially unfavourable for the Dahar Circle, but even the Bangar Circle with canal irrigation suffered heavily, while Taoru was only better because practically nothing but irrigation was attempted.

Kharif 1902.—A good harvest. In both the Taoru and Bangar Circles the amount of rain was sufficient, and though the Dahar Circle would have been better for a little more the actual area matured was large, and the percentage on sowings unusual for this tahsil.

Rabi 1903.—Sowings were not so large as might have been expected with good rain in September and October, but the crop as a whole did moderately, except in Taoru where the failure on unirrigated land was very heavy. The winter rains were below the average and the harvest may be characterised as rather poor.

Kharif 1903.—The rains came a little late, but were on the whole favourable for sowings, which were consequently above average. As in 1898 the September rains failed, and owing to the late sowings the damage was severe. In the end the harvest was rather below the average.

Rabi 1904.—Sowings were somewhat restricted, and as there were no winter rains the crop looked like being a total failure. A good fall of rain in March just prevented this, but the unirrigated harvest was very poor throughout the tahsil.

The harvests may be summarised as follows —

| 1 | 2 | 3 |
|---------|---------------|-----------|
| | Kharif | Rabi |
| 1898-99 | Average | Average |
| 1900-01 | Fair | Very good |
| 1901-02 | Average | Poor |
| 1902-03 | Good | Poor |
| 1903-04 | Below average | Bad |

27. The failed area returns made by the patwaris seem fairly reliable, except in the case of the Bangar Circle where owing apparently to the way in which no kharaba has been granted on nahri lands, there has been a distinct tendency to under-estimate the amount of failure. The average kharaba for nahri lands for the years selected for the produce estimate is only 15 per cent, the figures being —

| | Acres |
|---------|--------|
| Matured | 17,185 |
| Failed | 267 |
| Sown | 17,452 |

The failed area percentages in the various circles are given in the table of leading statistics in Chapter I of Part III. The small unirrigated proportion in Taoru is due to the fact that the soil being light and hardy requires less rain. Moreover bajra is the principal crop and the failure is consequently less than in those parts where unirrigated rabi crops are attempted. I have therefore made no further deduction although 15 per cent is very small. In the Bangar Circle both the irrigated and unirrigated percentages are too small and I propose to increase them by 10 per cent. The percentages will then be—

| | | | |
|-----------|-----|-------------|----|
| Irrigated | 11½ | Unirrigated | 28 |
|-----------|-----|-------------|----|

The difficulty of correctly estimating the proportion of jowar and cham has been noticed in the reports on other tahsils, and exists here also. At present jowar is regarded mainly as a fodder crop, and many fields are sown rather more closely than is advisable for a jowar crop with the result that the grain suffers, and the outturn is poor. It is hard to determine how far this is due to the drought, certainly there is now a tendency to regard a fodder famine as probable, and to take every precaution against it. Moreover the jowar crop has not done at all well of recent years, and it is not by any means popular as a grain crop even in the Dahar Circle.

28. Statement XII gives the data on which the assumed yields are based,

Yields,

Paragraph 31 of the Rewari Report sets out the reasons why the crop experiments in this district have not been very reliable. In the Nuh Tahsil the evidence of crop experiments would never be satisfactory, as the harvests tend to be very much above or below the average, with the result that the selection of fields becomes extremely difficult. At last settlement a number of experiments were made without any reference to the character of the harvest under observation, the object being to get a large number of outturns recorded and strike the average. This is open to the same objection that the result is liable to be either above or below a true average. The people themselves give estimates which as a rule seemed to me fair, and I have generally accepted these yields as correct when the same estimate is given over a large area in different villages. A glance at the statement of matured areas will serve to illustrate my meaning. The average matured percentage for 21 years is 90.7, but during that time the number of years in which the matured percentage is either above 100 or below 80 is 14, while only once has a harvest approached within one point of the average. Unfortunately the situation of the Nuh Tahsil does not admit of much useful comparison with outside districts. The Tijara Tahsil of Alwar State adjoins the Taoru Circle and seems to correspond fairly with it, but the remaining tahsils of Alwar do not afford any help. The Dahar Circle is the one in which the variations of the seasons are most prominent, and for this no satisfactory comparison is possible.

I now proceed to discuss the various yields assumed for the produce estimate.

This is not an important crop except in the Dahar Circle, where the soil is

KHARIF CROPS.

(a) Jowar 9 per cent

sited to it, and the outturns on flooded land are sometimes very good. I have taken 280 sers on irrigated and flooded lands in the Dahar Circle, and 240 sers on these lands in the other two circles. The outturns for barani are 220, 200 and 140 sers in the Dahar, Bangar, and Taoru Circles respectively, and for bhur 160, 140, and 120 sers.

Bajra is the great autumn cereal, and is especially suited to the light lands

(b) Bajra 30 per cent.

of the Taoru Circle where practically nothing else is grown. Very little is irrigated, and I have assumed 280, 240 and 200 sers in the three circles, the barani outturns being 200, 180 and 140 sers. On bhur lands I have taken 180 sers in the Dahar Circle, 160 in Bangar and 140 in Taoru.

The yield of all the pulses is difficult to ascertain with any accuracy, as they

(c) Pulses 14 per cent

are practically never grown alone. I have made no difference between the various soils or circles, the outturn of mung being 140, and of mash and moth 160 sers. For guar I have assumed a cash rate, while chaula has been put at 160 sers throughout the tahsil, and til at 120.

Cane is only grown on canal lands. It is not very popular, and on the

(d) Sugarcane 1 per cent

whole the outturn does not seem to be good. 800 sers is as high as we can safely go though larger estimates are frequently given. A little barani cane has been put at 480 sers.

This is a most important crop the yield of which is very hard to fix for

(e) Cotton 10 per cent

many reasons. In the first place it is almost impossible to tell what is going to be an average field. This has led to an exceedingly high estimate of the

outturn of cotton, as the experiments have been probably above the true average. The usual reply given by the zamindars is that the outturn is 200 sers on all except the worst lands including canal crops. This is not quite accurate. As far as I could judge canal fields are usually better than unirrigated, though of course the chief advantage of the canal cotton crop is that it enables the farmer to hedge against a total failure. The crop is sown earlier than the unirrigated, and is ready about September; consequently heavy late rain is not needed, whereas for the unirrigated crop it is essential. It is not possible to get a good canal crop and a good unirrigated crop in the same year, as one or the other is bound to suffer. The general assumption (borne out by the five years' average and the rainfall statement) is that dry years predominate and for this reason alone we might fairly put the nahri yield higher than the unirrigated. I propose to take 200 sers on chahi, nahri, and flooded lands in the Dahar and Bangar Circles, and 160 on the barani and bhur; the light Taoru lands are not so well suited to cotton cultivation, and I have assumed 160 sers on chahi and flooded lands, 120 on unirrigated, and 100 on bhur.

Wheat is not nearly so popular a crop as it was at last settlement. On

RANI CROPS

(a) Wheat 4 per cent

well lands it is very little grown. I have assumed 520 sers in Taoru where it is carefully cultivated, the Ahirs being the only people who grow it to any extent, in the Dahar Circle I have taken 440 sers, and in the Bangar 400. The abi and dahri wheat of the Dahar Circle I have put at 400 sers. It is only grown on the very best land, gochun being the regular crop on the average land. In a good year the outturn is very much higher than this, but I do not think it would be safe to assume a higher average. On the barani lands I have taken 240 sers and on bhur 140. On canal lands the crop does well, but the outturn is never high. I take 360 sers on both nahri and abi land in the Bangar Circle and on abi in Taoru. On the Taoru dahri which is somewhat inferior I take 320 sers. The Bangar barani is superior to that of Taoru and I take 240 sers in the former against 160 in the latter, the bhur outturn being 140 in both.

Barley is the staple well crop in the Taoru Circle. In the other circles it

Barley 11 per cent

is not grown to the same extent, owing to the peculiarities of well irrigation there. For Taoru I have taken a yield of 640 sers on chahi and 280 on abi and dahri. The unirrigated crops are poor in this circle, and I only assume 180 sers on barani and 160 on bhur. In the Dahar circle my yields are 460 sers on chahi, 360 on flooded land, 320 on barani, and 220 on bhur, while in the Bangar Circle they are 500 sers on chahi, 440 on nahri, 300 on abi and barani, and 200 on bhur. It will be seen that my yields for this crop differ considerably from those adopted by Mr. Channing at last settlement not only in the various circles but also and more particularly in their relation to each other. I am convinced that it was wrong to suppose that the chahi outturns in the Dahar and Bangar Circles were higher than those in Taoru, where the well cultivation is much more careful. On the other hand there can be no doubt that the unirrigated crops are better in those circles than in the light Taoru land. I have given a lower outturn for barley than wheat on flooded lands because neither barley nor bejhar are grown on land that has received a proper flooding, and the sign that a field has benefited by the floods beyond the ordinary barani land is that it is possible to grow wheat on it instead of barley. The result is that flooded barley is little better than unirrigated while the wheat is very superior.

Gram is not an irrigated crop at all. It is sometimes mixed with wheat

Gram 10 per cent.

or barley on well lands, the original intention having been to grow the crop without irrigation, and water being only given as a last resort. On canal lands it is grown as a second crop after cotton and then a little water is often required, but the result is no better than on unirrigated lands. The difficulty in fixing a yield for gram is that no separate column has been given to bejhar in the registers, and consequently the area shown as being under gram includes that grown on fallow land and the dofashi gram sown after bajra. However when dofashi gram is grown to any extent it means that the conditions have been favourable, and the outturn is generally good, so the difference is not so great as might have been expected. Mr. Channing's rate of 400 sers per acre in the Dahar Circle

seems to me too high for an all round rate, though on the best lands more than this is frequently obtained. In the Taoru Circle I have taken 340 sers on chahi, 320 on flooded lands, 200 on barami and 160 on bhur. The unirrigated rates are if anything a little high, but gram is only grown in Taoru when conditions are particularly good and the results are better than might have been expected considering the light soils of the circle. In the Dahar Circle I have made no difference between the chahi and unirrigated outturns as gram is not an irrigated crop. On flooded land however it does well and I have assumed 360 sers there against 320 sers on chahi and unirrigated. Practically no gram is grown on bhur, and when it is it usually means that the field possesses some distinct superiority, and I have therefore taken 240 sers. In the Bangar Circle I have taken 400 sers on chahi and nahri, 280 on abi and unirrigated, and 220 on bhur.

Oil-seeds are very little grown in this tahsil. Sarson is grown in the lines of bajhar and gochni crops, and tara similarly in the lines of gram fields. I have taken 160 sers on unirrigated land, 140 on chahi, nahri and flooded, and 120 on bhur throughout the tahsil except in the Taoru Circle where neither crop is much grown and 140 sers seems enough on unirrigated as well.

No zabti rents are found, but as there is a small area under crops for which a cash value is usually demanded I have assumed the same rates as are found in the rest of the district.

The invariable custom in this tahsil regarding straw is that the landlord takes the same share of the straw as he does of the produce. However with the scarcity of grazing prevalent throughout the tahsil it usually has to be consumed for fodder, and practically none can be sold. I have therefore included it in the gross produce estimate, but have omitted it from the net assets calculation.

The outturn of straw has been assumed to be three times that of the grain for jowar, twice for bajra, and one-and-a-quarter times for wheat, in all other cases it has been supposed to be equal to the grain. The value of the straw of rabi cereals and jowar has been fixed at three annas per maund, that of the other kharif crops and gram being put at two annas. The straw of oil-seeds is of no value, and has consequently been neglected.

29 The sanctioned prices of the present settlement are given below in annas per maund, and compared with those of last settlement. —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---------------------------|--------|-------|------|------|------|------|--------|-------|--------|-------|---------|----------|
| | Jowar. | Bajra | Mung | Moth | Til. | Cane | Cotton | Wheat | Barley | Gram. | Sarson. | Taramira |
| Prices at last settlement | 17 | 19 | 21 | 18 | 43 | | 49 | 24 | 17 | 18 | 32 | 22 |
| Sanctioned now | 20 | 23 | 30 | 22 | 60 | 45 | 64 | 32 | 22 | 23 | 45 | 32 |
| Rise per cent | 18 | 21 | 43 | 42 | 40 | | 31 | 33 | 29 | 28 | 41 | 45 |

Mr Channing's prices were the average of the 20 years 1854—1873, while the present ones are based on the harvest prices of the last ten years extracted from bannias' books. The sanctioned prices are for the whole district. Mr. Hamilton in his Preliminary Report commented on the fact that there was no difference in the Nuh Tahsil in spite of its isolated position. The reason of this appears to be found in the practice amongst the Meos of borrowing money on a crop before it is grown, if it fails the borrower has to pay the full market value of the crop, though of course the money was lent at a very much lower rate. This has tended to inflate the harvest price of crops to the detriment of the farmer. The all round rise according to the method of calculation given in

paragraph 326 of the Settlement Manual is 24 per cent. Bajra is the only crop which attains a high percentage, but the rabi crops wheat, barley and gram taken together are responsible for practically the whole of the spring demand, and cotton with bajra for the autumn. As has been pointed out in the other reports the effective rise in prices is not of much importance as the assessment is being based on cash rents.

30. The area available for grazing is very small throughout the tahsil and what there is produces such inferior grass as to be of very little assistance.

Fodder crops

Cattle are therefore almost entirely stall-fed, and large fodder deductions are necessary. Charri and gowar are fodder crops and as elsewhere will be entirely neglected.

Apart from these regular fodder crops it is difficult to determine what proportions of the various crops the tenant would be allowed to cut for fodder, as the area under kind rents is so small. Undoubtedly large deductions would have to be made, and I accordingly make the following assumptions. Irrigated jowar is regularly cut for fodder and may be entirely neglected, but the case of unirrigated jowar is more difficult. In Rewari 50 per cent of the jowar grown on magda and bhui was deducted, while in the Tijara Tahsil of Alwar Mr O'Dwyer only deducted 12 per cent. I propose to deduct 25 per cent. on all soils in this tahsil, and 20 per cent of the pulses which though not grown for fodder are readily sacrificed to make room for a rabi crop. All sarson on irrigated land should be deducted, and 20 per cent of the remainder, as though a valuable crop it is exceedingly delicate, and is in consequence largely cut for fodder. Five per cent must also be allowed for the barley that has to be given up. These deductions are considerably more than those granted in Alwar, but with a salt soil and practically no grazing I do not think that they are excessive.

31. Menials' dues are invariably paid by the tenant and not from the common heap. There is therefore no deduction to be made on this account, but

Menials' dues and hired labour

when assessing some account must be taken of the very large area cultivated by the owners themselves, as on all of this the expenses of menials' dues have to be met by the person who is responsible for the land revenue.

The only crops for which hired labour is invariably required are cotton and cane. Cotton pickers get 10 per cent, cash payments being practically unknown. For hoeing cane fields I propose to deduct Rs 3 per acre as in Palwal. In all other cases the Meo relies on the assistance of his own family and no hired labour is required.

32. In the Taoru Circle where wells are regularly worked the owner is responsible for keeping the well in good working order. In the other two

Repairs to wells

circles it is usual for the landlord to take in his tenant as a partner if the well has to be worked, and in these cases the expenses are shared. But here too the majority of the wells are kept in the hands of the owners, and consequently all expenses have to be borne by them. In Taoru 5 per cent will be deducted, but in the other circles, as in the case of the menials' dues, no actual deduction will be made, but the fact must be borne in mind when assessing the tract.

33. The question of the true proportion of the failed to the matured area has already been discussed in paragraph 27. As proposed there 10 per cent will

Failed area allowances

be deducted in the Bangar Circle.

34. The landlord's share of the produce on the various classes of soil was stated in paragraph 24, and is shown in percentages in the following table.—

Landlord's share of the produce

| | | |
|-------------|---------|-----|
| Irrigated | { Chahi | 33½ |
| | { Nahri | 50 |
| Unirrigated | ... | 50 |

As in the case of unirrigated crops, no further deduction has to be made, the Government share is half that of the landlord's. The same is true of chahi in all circles except Taoru, where the share is $31\frac{2}{3}$ per cent, owing to the deduction referred to in paragraph 32. On nahri land the landlord pays half the cost of the seed and half the canal dues, and in the case of cotton he shares the cost of the picking, while in the case of cane there is the cost of cultivation to be taken into consideration. The details of this have been given in the Palwal Report. For purposes of reference I give them again here—

| | Rs | a | p |
|--------------------------------------|----|----|---|
| Cost of seed | 9 | 0 | 0 |
| Share of cost of hoeing | 3 | 0 | 0 |
| Hire of the press | 5 | 0 | 0 |
| Pay and food of the jhokra and tarra | 7 | 12 | 0 |
| Total | 24 | 12 | 0 |

To avoid unduly complicating the produce estimate I have worked out separately the value per acre of each nahri crop, and to obtain the total value of the Government share it is only necessary to multiply the area by the value per acre. The rates per acre are obtained by working out the value of a matured acre of each crop (less fodder allowance, *vide* paragraph 30) at the yields assumed in paragraph 28, and the sanctioned prices given in paragraph 27. After deducting the value of the seed sown, the canal dues, and the expenditure mentioned in paragraph 31, the Government share is one-fourth of the remainder except in the case of cane when it is one-sixth.

The gross produce and half-net-asset estimates are worked out in detail in Statement XIII. Before abstracting the results here it is necessary to make the allowance in the Bangu Circle for the serious under-estimate of kharab mentioned in paragraph 27. In the following table the extra deduction of 10 per cent mentioned there has been made—

It will be seen that the half-net-assets in all circles is considerably higher than the value of $\frac{1}{8}$ of the gross produce. This is due to the high rate of batai prevailing on unirrigated soils. In Alwar Mr O'Dwyer assumed a rate of $\frac{2}{5}$ ths, and this would probably be a fair rate here also.

CHAPTER VI.—HALF-NET-ASSETS BASED ON CASH RENTS.

35 The results of the examination of cash rents have been described in paragraph 25. It only remains to decide what share of the corrected rents may be taken as equivalent to half the net assets. In the Taoru Circle, which closely resembles the Rewari Tahsil, I propose to make the same deductions as those detailed in paragraph 37 of that report. In the Dahar Circle the case is quite different. The rent rates are high, and owing to the precariousness of the cultivation the proportion that is unealsable over a series of years is extraordinarily large. I do not think that the position disclosed by the Hiranthala owners' account books is in any way abnormal, on the contrary everything goes to show that efforts have been made to keep collections up to the highest possible pitch, as there is no doubt that the owners have lost heavily owing to the way in which the full demand has invariably been taken from them. This indicates a loss of 25 per cent on the declared rental, and I propose to make this deduction. It is more difficult to decide what should be done in the Bangar Circle. Not only are there no accounts to help us, but the nahri rents are so obviously unreliable that the whole value of the rents is to a great extent discounted. Under these circumstances it seems best to treat the nahri rate as equivalent to the chahi rate for the purposes of the cash rent estimate. As to the amount of the deduction to be made, the circle seems to me to be about half way between the Dahar and Taoru Circles in the matter of collections, and I accordingly propose to deduct 15 per cent. from the rental. The half-net-asset rates and jamas accordingly are as follows —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------|------------|--------|--------|---------|----------|--------|------------------|--------------------|-------------------|
| Circle | Detail | Chahi | Nahri | Flooded | Barani | Bhur | Total cultivated | Present assessment | Increase per cent |
| TAORU | Rate Rs | 2 5 0 | | 1-7 0 | 1 2 0 | 0 10-6 | 1 3 8 | | |
| | Area Acres | 5,385 | | 1,685 | 26,149 | 7,946 | 41,165 | | |
| | Amount Rs | 12,452 | | 2,422 | 29,418 | 5,215 | 49,507 | 36,501 | 35 |
| DAHAR | Rate Rs | 1-7 3 | | 1 7 6 | 1 8 5 | 0-15 9 | 1 7 1 | | |
| | Area Acres | 2,886 | | 26,328 | 39,698 | 8,478 | 77,885 | | |
| | Amount Rs | 4,194 | | 38,669 | 60,581 | 8,341 | 1,11,785 | 1,01,251 | 10 |
| BANGAR | Rate Rs | 1 13-9 | 1 6-0 | 1 6-0 | 1 6-0 | 0 11 6 | 1 5 7 | | |
| | Area Acres | 4,870 | 23,273 | 1,028 | 50,929 | 6,879 | 86,986 | | |
| | Amount Rs | 9,080 | 32,000 | 1,413 | 69,927 | 4,944 | 1,17,350 | 1,00,360 | 17 |
| TOTAL | Rate Rs | 1 15-4 | 1-6 0 | 1-7 5 | 1 5 11 | 0 12-8 | 1 6-9 | | |
| | Area Acres | 13,147 | 23,273 | 29,041 | 1,16,776 | 23,298 | 2,05,535 | | |
| | Amount Rs | 25,712 | 32,000 | 42,504 | 1,69,926 | 13,500 | 2,92,849 | 2,38,112 | 23 |

The results given by the cash rents are invariably lower than those of the produce estimate. This is of course due to the batai rate, which, as I pointed out when dealing with the abstract of the produce estimate, is too severe for this taluk. In the Feroz and Dahar Circles the results of the cash rents give in my opinion a very full half-net-assets jama. In the Bangar Circle the result is vitiated by the nahri rents, which are ridiculously inadequate. I have previously suggested that the chahi rate should be assumed to apply to the nahri area in order to correct to some extent this false result. If this be done the nahri jama is raised to Rs 43,273, and the total jama to Rs 1,39,623. Even this is not sufficient, because the produce estimate shows that the nahri land is distinctly more valuable than the chahi, taking into consideration the difference in the proportions of irrigation. This is exactly what would be expected, as the Bangar chahi is inferior, whereas the nahri, though not so good as that in the Palwal Tahsil is still a very good irrigated soil, and one that is particularly useful on account of the inferiority of the chahi irrigation. The half-net-assets nahri cash rent rate in Palwal is Rs 2-12-0 and in Ferozpur Rs 1-12-6. It is probably fairly correct to assume that the Bangar Circle stands about midway between these two. This indicates a rate of about Rs 2-4-0 for nahri, and if this assumption be made, the cash rent jama will be raised to Rs 1,37,714 which is a fairly close approximation to the produce estimate figures. The difference would then, as in the other circles, be attributable to the rate of batai.

PART II.—FISCAL AND MISCELLANEOUS.

CHAPTER I.—FISCAL HISTORY.

36. The tahsil, as at present constituted, contains 289 villages of Parganas Nuh, Taoru, Hathin, Sohna, Bahora and Palwal. At last settlement there were 311 villages included in the tahsil, and the present numbers are the result of a redistribution carried out by Mr. Channing. The history of the various parganas after annexation is given in paragraphs 8 to 15 of the Nuh Report. Some were farmed out for short periods, but in all cases as soon as settlements were arranged a very heavy Summary Settlement was fixed which proved too much for the people. Pargana Taoru broke down and several reductions had to be granted, while all the other parganas were more or less distressed. In 1841 Mr. Barnes resettled the whole of the present tahsil, and finding a state of almost universal poverty he granted large reductions, which had a most beneficial effect. The jama of the Taoru, Hathin and Nuh Parganas, and of the Bahora, Sohna and Palwal villages was reduced by him from Rs 3,11,697 to Rs. 2,37,448. In the case of the Bahora villages apparently no re-assessment was made.

Mr Channing quotes Mr. Fraser as speaking well of the working of all these settlements, but owing to the destruction of records in the mutiny no detailed account of the working up to 1857 could be given. However there seems no doubt that the general condition of the people was good.

37. The second Regular Settlement was begun in 1872 and completed under circumstances that are well known in 1883. Mr Channing found everywhere signs of great prosperity, and partly owing to the fact that the seasons at that time were particularly favourable, he was led to impose a heavy increase on the tahsil. In summing up the position as he found it, Mr. Channing notes that the assessments were the result of reductions in the past amounting to 27 per cent., while on the other hand cultivation had increased by 42 per cent, and the value of produce even at a low calculation by 11 per cent. Irrigation had developed, and the increase in population was proportionate to the increase in resources. Transfers were light on the whole, and except in inundated tracts the revenue demand had been paid with great regularity. Mr Channing based his proposals upon the results of his produce estimate. Except that the outturns in the Dahar Circle were rather high owing to the abnormally good seasons, and were applied to the whole area cultivated during the year of measurement, there is nothing to which exception can be taken in the produce estimate. The value of the gross produce of the whole district as calculated in Form D was Rs 21,48,038, one-sixth of which is Rs. 3,58,007. The total given by the circle rates was Rs 2,72,385 and the jama actually imposed was Rs 2,59,984. This, however, is only for the present 289 villages, and therefore no comparison with the assessment made by Mr Barnes is possible, but the increase was fairly considerable. The settlement broke down almost immediately, and Mr. Wilson was appointed to carry out a revision of the demand in 1882. The plan adopted is clearly explained in the Revision Report printed with the Gurgaon Settlement Report, and I do not propose to add to what has already been said there. The result of these proposals is given in Appendix II of Mr Wilson's Report and shows a permanent reduction of the demand to Rs 2,41,584, with an additional reduction of Rs 28,187 for seven years. These proposals were sanctioned, and it is with their working that we are principally concerned now. In the Taoru Circle the expiring settlement has worked very well, though the average collections are only Rs 81,124 against a demand of Rs 36,501, or 85 per cent. In the Bangal Circle also, owing to the introduction of irrigation from the Agra Canal, the general condition of the people is good, but the individual circumstances vary. The portion which is now benefited by the canal was originally the worst in the circle, and consequently was lightly treated. The result is that now we have part of the circle lightly assessed with all the benefits of irrigation to be

to the extent of the remainder, which was not so long only treated in the first instance, but suffered during the past dry years. Still even here there is a real distress, and on the whole the assessment has worked very well. The assessment has amounted to Rs 57,125 against a demand of Rs 1,00,860, or 56 per cent. As the demand in canal villages has always been collected in full, it is not difficult to see from this that in the unirrigated portion of the circle it would have been required. Turning to the Dahar Circle the first point to which I would call attention is the change introduced by Mr Channing in the fluctuating assessment at the person now known as Chikhal. The villages which were liable to flooding from the waters of the Kotla Jhal were assessed with a fluctuating assessment. The conditions have altered considerably since Mr Channing's time. The enormous fluctuations in cultivation, which were then caused by submersion, are now due to drought, but the effect is the same. At the time of revision some modifications in Mr Channing's proposals were sanctioned, allowance being made for failure, and revenue only levied from the cropped crops. This system is most popular, and indeed it is difficult to imagine what would have happened if some such system had not been in force. As it is the people are very poor, and the large area out of cultivation shows that they are unable to fully develop their resources. In paragraph 62 of the Revision Report Mr Wilson has worked out the average fluctuating revenue at Rs 8,586, but the average since 1883 is only Rs 3,487. The figures in the case of fixed revenue are given in paragraph 13 of the Revision Report, and amount to Rs 11,861, the year coming to Rs 1,03,236 against Rs 1,12,607 imposed by Mr Channing. Making allowance for the difference due to the introduction of the fluctuating assessment this was an increase of about Rs 10,000 on Mr Barnes' assessment, but even this has proved too much for the people to pay. Collections have amounted to 84 per cent since 1883, which is almost exactly the same as in the other circles. In other respects, however, there is no comparison between the three circles. The Dahar Circle is infinitely the poorer, and in spite of the drainage schemes, which it was thought would improve its condition considerably, there can be no doubt that the account given by Mr Barnes and quoted by Mr Channing in paragraph 11 of the Nuh Report is fully applicable to the Dahar Circle at the present time. This is I think almost conclusive evidence that this circle cannot stand a heavy assessment, and is not inclined to deteriorate under lenient treatment. Mr Barnes found the tract very poor, and by judicious reduction of the demand not only saved the circle from further ruin, but actually ensured a fair amount of prosperity during the whole course of his settlement. The position was not quite so good as appeared to Mr Channing, because the period of settlement was abnormally prosperous for a tract so entirely dependent on the rainfall. Still the area mortgaged was small compared with the present state of things, and the people were by no means overburdened. Now the drought in cattle, and the very serious extent to which the locusts have taken place indicate a real poverty, which a good season would do little to repair other than to avert. No doubt the present position is abnormally bad, but it is not so bad as it was at last settlement, but there is the great danger that the effect of a few bad seasons may wear off very quickly, where- upon the consequences of drought may be enough to burden the people for a long time. More than 50 per cent of the population of the part settled now shows the fatal results of an over-assessment, and the same is the case in a tract where the variations in

The appended statement shows the suspensions, remissions and collections of revenue during the last 21 years in percentages on the average khalsa demand.—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | |
|------------|-------------|-------------|--------|-------|------------|-------|--------|-------|-------------|-------------|--------|-------|-------|
| YEAR. | SUSPENSIONS | | | | REMISSIONS | | | | COLLECTIONS | | | | |
| | Taoru | Dahar | Bangar | Total | Taoru. | Dahar | Bangar | Total | Taoru | Dahar | Bangar | Total | |
| | | | | | | | | | | | | | |
| 1885-86 | | 10 8 | 02 | 4 6 | | 10 8 | 02 | 4 6 | 95 9 | Fixed | 87 6 | 100 1 | 94 1 |
| 1886-87 | | .. | | | | | | | | Fluctuating | 89 9 | | 95 1 |
| 1887-88 | | 6 4 | 00 4 | 2 7 | | 6 4 | 00 4 | 2 7 | 97 8 | Fixed | 5 1 | 93 2 | 5 1 |
| 1888-89 | | | | | | | | | | Fluctuating | 97 3 | | 85 6 |
| 1889-90 | 38 | 9 2 | 1 | 4 5 | | | | | 98 4 | Fixed | 99 8 | | 96 7 |
| 1890-91 | | 2 6 | | 1 1 | | | | | | Fluctuating | 95 | 92 5 | 9 5 |
| 1891-92 .. | | Fixed | | 1 1 | | | | | 93 4 | Fixed | 84 3 | | 89 1 |
| 1892-93 | | Fluctuating | | 1 1 | | | | | | Fluctuating | 86 3 | | 90 0 |
| 1893-94 | | Fixed | | 6 | | | | | 93 6 | Fixed | 13 4 | | 13 4 |
| 1894-95 | | Fluctuating | | 07 | | | | | | Fluctuating | 90 0 | 92 4 | 91 5 |
| 1895-96 | | Fixed | | 44 5 | | | | | 97 8 | Fixed | 91 6 | | 92 2 |
| 1896-97 | | Fluctuating | | 5 | | | | | | Fluctuating | 33 6 | | 33 6 |
| 1897-98 | | | | | | | | | 97 3 | Fixed | 93 2 | 101 5 | 99 5 |
| 1898-99 | | | | | | | | | | Fluctuating | 92 7 | | 97 1 |
| 1899-1900 | | | | | | | | | 104 5 | Fixed | 294 5 | | 294 5 |
| 1900-01 | | | | | | | | | | Fluctuating | 106 8 | 101 8 | 104 4 |
| 1901-02 | | | | | | | | | 101 9 | Fixed | 105 0 | | 103 6 |
| 1902-03 | | | | | | | | | | Fluctuating | 171 0 | | 171 0 |
| 1903-04 | | | | | | | | | 101 6 | Fixed | 110 6 | 101 8 | 106 6 |
| 1904-05 | | | | | | | | | | Fluctuating | 106 3 | | 103 7 |
| 1905-06 .. | | | | | | | | | 101 6 | Fixed | 264 9 | | 264 9 |
| | | | | | | | | | | Fluctuating | 104 2 | 101 7 | 102 8 |
| | | | | | | | | | 101 6 | Fixed | 101 3 | | 101 5 |
| | | | | | | | | | | Fluctuating | 210 2 | | 210 2 |
| | | | | | | | | | 101 6 | Fixed | 101 1 | 101 7 | 101 4 |
| | | | | | | | | | | Fluctuating | 100 4 | | 101 3 |
| | | | | | | | | | 101 6 | Fixed | 125 0 | | 125 0 |
| | | | | | | | | | | Fluctuating | 93 8 | 101 3 | 98 8 |
| | | | | | | | | | 101 6 | Fixed | 94 3 | | 93 6 |
| | | | | | | | | | | Fluctuating | 75 1 | | 75 1 |
| | | | | | | | | | 101 6 | Fixed | 93 5 | 101 5 | 98 0 |
| | | | | | | | | | | Fluctuating | 85 4 | | 98 9 |
| | | | | | | | | | 101 6 | Fixed | 24 5 | | 24 5 |
| | | | | | | | | | | Fluctuating | 100 4 | 101 5 | 101 0 |
| | | | | | | | | | 101 6 | Fixed | 100 6 | | 101 2 |
| | | | | | | | | | | Fluctuating | 85 5 | | 85 5 |
| | | | | | | | | | 101 6 | Fixed | 109 2 | 102 3 | 105 2 |
| | | | | | | | | | | Fluctuating | 106 5 | | 104 0 |
| | | | | | | | | | 100 8 | Fixed | 204 9 | | 204 9 |
| | | | | | | | | | | Fluctuating | 89 8 | 100 8 | 95 0 |
| | | | | | | | | | | Fixed | 91 7 | | 96 9 |
| | | | | | | | | | 25 6 | Fluctuating | 22 6 | | 22 6 |
| | | | | | | | | | | Fixed | 11 1 | 52 5 | 35 0 |
| | | | | | | | | | 15 4 | Fluctuating | 21 6 | | 35 3 |
| | | | | | | | | | | Fixed | 11 1 | | 11 1 |
| | | | | | | | | | 99 4 | Fluctuating | 116 2 | 122 4 | 124 4 |
| | | | | | | | | | | Fixed | 117 0 | | 124 8 |
| | | | | | | | | | | Fluctuating | 86 8 | | 86 8 |
| | | | | | | | | | 101 4 | Fixed | 69 2 | 92 2 | 83 3 |
| | | | | | | | | | | Fluctuating | 60 6 | | 83 7 |
| | | | | | | | | | 105 1 | Fixed | 47 1 | | 47 1 |
| | | | | | | | | | | Fluctuating | 107 5 | 105 7 | 106 8 |
| | | | | | | | | | | Fixed | 108 5 | | 107 2 |
| | | | | | | | | | 101 4 | Fluctuating | 70 6 | | 70 6 |
| | | | | | | | | | | Fixed | 81 5 | 94 1 | 98 7 |
| | | | | | | | | | | Fluctuating | 81 0 | | 81 0 |
| | | | | | | | | | 104 2 | Fixed | 100 7 | | 100 7 |
| | | | | | | | | | | Fluctuating | 105 3 | 111 5 | 116 5 |
| | | | | | | | | | 90 6 | Fixed | 123 3 | | 115 6 |
| | | | | | | | | | | Fluctuating | 219 0 | | 219 0 |
| | | | | | | | | | | Fixed | 44 2 | | |
| | | | | | | | | | | Fluctuating | 44 5 | | |
| | | | | | | | | | | | 25 4 | | |

The remissions in 1901-02 were on account of the Coronation, and 1905-06 were of sums outstanding for more than three years

The amount under suspension at the end of Rabi 1907 was as follows.—

| 1 | 2 | 3 | 4 | 5 |
|------------------------------------------------------|-------|--------|--------|----------|
| | Taoru | Dahar | Bangar | Total |
| 1 On account of previous years | .. | 23,075 | 2,915 | 25,990 |
| 2 Do 1905-06 | 3,799 | 56,696 | 31,924 | 92,419 |
| 3 Total | 3,799 | 79,771 | 34,839 | 1,18,409 |
| 4 Proposed for recovery with rabi instalment of 1907 | 1,459 | 15,592 | 14,528 | 31,579 |
| 5 Proposed for remission (rabi 1907) | | 8,960 | 172 | 9,092 |
| 6 Total proposed recoveries and remissions | 1,459 | 24,552 | 14,660 | 40,671 |
| 7 Balance outstanding | 2,340 | 55,219 | 20,179 | 77,738 |

All unrecovered balances existing when the new demand is announced should be remitted

CHAPTER II.—MISCELLANEOUS.

38 The total population at the last census was 145,931. Separate figures for the children of each tahsil are not available, but taking the average of the whole district the figures are—

| 1 | 2 | 3 | 4 |
|--------|--------|---------|----------------------------------------|
| Detail | Males | Females | Children under ten (excluding infants) |
| Urban | 8,864 | 8,160 | 3,968 |
| Rural | 46,578 | 42,806 | 20,835 |

Infants have been estimated to number 10 per cent of the total population. The diet of the zamindars of the district has been described in the Rewari Report. I do not think that any changes need be made for this tahsil, and shall therefore adopt the same scale of diet as was assumed there. For purposes of reference it is shown in the following table—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------|------------------|------------------|------------------|------------------|------------------|------------------|
| | MALES | | FEMALES | | CHILDREN | |
| | Chataks per diem | Maunds per annum | Chataks per diem | Maunds per annum | Chataks per diem | Maunds per annum |
| Urban .. | 10 | 5 $\frac{1}{2}$ | 8 | 4 $\frac{1}{2}$ | 6 | 3 $\frac{1}{2}$ |
| Rural ... | 12 | 7 $\frac{1}{2}$ | 9 | 5 | 6 | 3 $\frac{1}{2}$ |

The total annual consumption is therefore 714,569 maunds. The yield of food grains is given in the detailed produce estimate, and the tahsil totals in maunds, after making the fodder deductions shown in paragraph 30 are as follows—

| | | | |
|----------|---------|-----------|---------|
| Jowar .. | 60,622 | Chaula | 11,978 |
| Bajra | 239,847 | Wheat | 59,792 |
| Maize | 1,209 | Barley .. | 166,340 |
| Mung | 12,446 | Gojra .. | 12,623 |
| Mash | 1,707 | Gram | 127,236 |
| Moth | 6,516 | Gochri .. | 47,832 |

Except in the case of wheat, the amount of seed sown, and the failed area percentages may be taken to be the same as in the Palwal Tahsil. The large flooded area sown with a wheat crop, and the peculiar system of well irrigation must be taken into account, and I have therefore allowed 20 per cent. for wheat as for barley, and also for the mixtures. The deductions for conversion into flour are given in the appended table:—

| | | | | |
|-------|----------------|----------|---------------|----------------------|
| Jowar | } 1½ per cent. | Wheat | } 5 per cent. | Barley, 10 per cent. |
| Bajra | | Pulses | | |
| Maize | | Mixtures | | |

The result of the above calculations is tabulated as follows:—

| 1 | 2 | 3 | 4 | 5 | 6 |
|------------------|-----------------------|----------------------------|-------------------------------------|------------------------|-----------------------|
| Crop | Seed per acre in sers | Percentage of failed area. | Total amount of seed sown in maunds | Net produce in maunds. | Net produce converted |
| Jowar | 15 | 25 | 7,965 | 52,657 | 52,627 |
| Bajra | 3 | 25 | 5,119 | 234,728 | 231,794 |
| Maize | 7 | 14 | 38 | 1,171 | 1,156 |
| Mung | 3 | 25 | 424 | 12,022 | 11,421 |
| Mash | 3 | 25 | 51 | 1,657 | 1,575 |
| Moth | 5 | 25 | 330 | 6,184 | 5,875 |
| Chaula | 1 | 25 | 117 | 11,861 | 11,288 |
| Wheat | 50 | 20 | 10,307 | 49,485 | 47,011 |
| Barley | 50 | 20 | 29,778 | 136,562 | 122,906 |
| Gojra | 50 | 20 | 2,387 | 10,236 | 9,715 |
| Gram | 25 | 22 | 14,106 | 113,130 | 107,473 |
| Gochni | 40 | 20 | 7,371 | 40,561 | 38,533 |
| Total | ... | ... | ... | 6,70,254 | 6,41,354 |

This gives a deficit of 73,215 maunds of food crops yearly. There is, however, a large area of non-food crops, the total value of which, as taken from the produce estimate, is Rs. 3,98,292. In the above calculations half the value of the cane, and one-tenth of the value of the cotton have been deducted as part of the cost of production, and some further deductions are necessary on account of seed. This does not leave a very large margin to provide clothing and the necessaries of life, but the calculations can at best be only a rough guide. Unfortunately no figure of exports and imports are available, as the railway does not run through the tahsil, and consequently it is impossible to apply any test to these assumptions. The people do not as a rule, either in their dress or style of living, give any indication of prosperity, and except in the canal tract, there is a good deal of poverty. To some extent the constitutional thriftlessness of the Meo is responsible for this, as even with a light assessment and a hardy soil, such as is found in the Taoru Circle, he cannot be said to be really prosperous, but there can be no doubt that the recent dry cycle has had a great effect on the welfare of the tahsil as a whole, and of the Dahar Circle in particular. This is important in this connection, as the Dahar Circle is the only one which is capable of showing any great variations in cropping according to the state of the seasons. While, therefore, admitting the general poverty of the tahsil, I do not think that the position is quite as bad as these figures make out, and under normal conditions the tahsil may be assumed to be self-supporting.

PART III.

CHAPTER I.—THE ASSESSMENT.

39 The leading statistics relating to the assessment of the various circles are summarised in the accompanying table. There is nothing that calls for special mention here, but where necessary it will be referred to in the following paragraphs dealing with the proposals for the various circles.—

| 1 | 2 | 3 | 4 | 5 |
|----------------------------------------------------------------------------|----------|----------|----------|---------------|
| | Tauru | Dabar. | Bangar | Total Talsil. |
| Percentage of cultivated to total area | 74.7 | 78.8 | 88.5 | 81.6 |
| Increase of cultivation per cent | 1.4 | 6 | 6 | 8 |
| Percentage of chahi irrigation to total cultivation .. | 7 | 1 | 21 | 3 |
| Do. nabri do. do | | | 18½ | 7½ |
| Increase of irrigation per cent | 19 | 97 | 1,189 | 398 |
| Percentage of abis to total cultivation | 3 | 8 | 1 | 4 |
| Do. dahri do | 1 | 29 | 1 | 12 |
| Do. superior barnai to total cultivation | 63½ | 48½ | 58½ | 55½ |
| Do. bhar to total cultivation | 19 | 10 | 8 | 11 |
| Increase per cent of wells in use | 89 | 171 | 106 | 105 |
| Do. of laos | 5½ | 26 | 24 | 34 |
| Percentage of sweet wells (excluding dhankha) .. | 98 | 61 | 48 | 73 |
| Average depth to water of pakka wells in feet .. | 35 | 18 | 29 | 27 |
| Do. of water do | 20 | 15 | 26 | 21 |
| Average area irrigated per pakka laos in acres .. | 4 | 2 | 2 | 3 |
| Decrease per cent of bullocks | 23 | 31 | 2 | 18 |
| Increase or decrease per cent of ploughs | —14 | —22 | 1 | —11 |
| Cultivated area per plough in acres | 17 | 22 | 16 | 18 |
| Increase or decrease per cent of population | +29 | —8 | +48 | +21 |
| Incidence of rural population per square mile of cultivation .. | 465 | 309 | 417 | 421 |
| Average area in acres per owner | 8 | 7 | 7 | 8 |
| Percentage of good cultivators, "Jats and Ahirs," to total owners | 14 | 4 | 48 | 23 |
| Percentage of cultivated area sold since settlement .. | 4 | 6 | 2 | 4 |
| Average sale price per acre in even rupees | 41 | 29 | 57 | 36 |
| Percentage of cultivated area under mortgage | 24 | 38 | 24 | 29 |
| Average consideration money per acre in rupees .. | 40 | 41 | 58 | 46 |
| Amount of unsecured debt in rupees | 2,70,925 | 3,88,069 | 2,60,013 | 9,02,007 |
| Percentage of abson on land revenue (1905-06) .. | 712 | 881 | 219 | 381 |
| Do. matured to cultivated area— | | | | |
| Irrigated | 57 | 26 | 51 | 52 |
| Dabri | 40 | 26½ | | 27 |
| Superior barnai | 125 | 126 | 124 | 126 |
| Bhar | 97½ | 78 | 81 | 86½ |
| Total | 107½ | 80 | 99 | 93½ |
| Percentage of failed to matured crops— | | | | |
| Irrigated | 9 | 16½ | 11 | 4½ |
| Unirrigated | 15 | 28 | 18 | 21 |
| Percentage of area cultivated by owners | 61 | 56 | 62 | 60 |
| Do. do (tenants at will paying cash rent (not being at revenue rate) | 17 | 17 | 11 | 14 |

40 This circle contains 8½ villages, and at present is doing very well. The soil, though light, is wonderfully fertile, as the cropping returns clearly show. On the other hand no first class crops are produced, and I have assumed low prices throughout. Taking the various rolls in detail, the chahi is fair and satisfactory development, the value of kaobcha wells having been simply

demonstrated. Although the recent drought may have been responsible for some of this development originally, the system is now so popular that I do not think there need be any fear of a contraction of irrigation in the future: on the contrary it is more probable that after settlement there will be a further increase, as the tendency is for irrigation to be rather restricted during a settlement, in order to avoid a chahi assessment. The position of the flooded lands has now greatly improved. The drainage from the hills has been controlled by some excellent bunds, with the result that in place of rather precarious dahri, the circle now contains good abi. In the statistics in the previous paragraph the two soils have been classed together, but the superiority of the abi is shown in the following comparison of their matured areas, which put in the form of percentages are—

| | | | | | | |
|-------|----|----|----|----|----|-----|
| Abi | .. | .. | .. | .. | .. | 110 |
| Dahri | . | . | . | .. | .. | 63 |

This is perhaps an exaggeration of the difference between the two soils, but there can be no doubt that the abi is distinctly the better soil of the two. For this reason I propose to retain the present system of levying abiana from these bunds. Not only will this serve to equalise the difference between the flooded soils, but in the case of land that may be brought within the operation of the bunds in future it will be useful. The bund system is capable of very great improvement, and if this be carried out, the flooded area will be substantially increased. Finally the operation of properly controlled floods is extremely beneficial to the light Taoru soil, and this advantage over the dahri land can be best accounted for by a fluctuating rate. The present abiana rate is 8 annas per pakka bigha. The rates proposed by Diwan Tek Chand in his No 207 L F, dated 30th April 1904, to the Commissioner Delhi Division, which was forwarded to Government with Commissioner's No 208, dated 9th May 1904, were Re. 1 per pakka bigha for all the bunds in the Nuh Tahsil, but these proposals have not as yet been put into force. From the produce estimate it will be seen that the difference between the value of a matured acre of abi and baram land is Re 1. As I am proposing to assess abi land at a higher fixed rate than baram, I think that a fluctuating rate of 8 annas per pakka bigha, or Re 0-12-9 per acre will be sufficient. In other respects there has not been any great development since last settlement. Population has increased, but there is not a corresponding increase in cultivation, while bullocks and ploughs have actually decreased. The results of the produce estimate and cash rents indicate that a large increase can be taken, but there are the following reasons for caution. In the first place the circle has always been lightly assessed in the past. It is natural to compare the rich soil below the hills with this sandy table-land, and fix much lower rates for it than for the Dahar Circle. This is to some extent incorrect, as the circle, though lighter, is far more secure than the heavy clay and loam lands. On the other hand the circle is divided up into small estates owned by Meos, who never manage to accumulate any wealth, and cannot stand any very great increase in their assessment.

The rates adopted by Mr. Channing and Mr. Wilson are compared with those deduced from the produce and cash rent estimates in the following statement:—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------------------|--------|-----------|----------|--------|--------|---------------------------|--------|--------------------|
| | Chahi. | Abi dahri | Narmot. | Magda. | Bhur. | Rate on total cultivation | Jama. | Actually assessed. |
| | Rs a | Rs a | Rs. a | Rs. a | Rs a p | Rs a p | Rs | Rs. |
| Mr Channing | 2 8 | 1 12 | 1 2 | 0 14 | 0 9 0 | 0 15 4 | 39,789 | 38,988 |
| " Wilson | 2 1 | 1 8 | 1 2 | 0 14 | 0 7 0 | 0 14 6 | 36,097 | .. |
| Produce estimate | ... | ... | .. | .. | .. | 1 7 5 | 59,900 | .. |
| Cash rents | 2 5 | 1 7 | Re 1-2-0 | | 0 10 6 | 1 3 3 | 49,507 | .. |

The very high rate of batai is responsible for the difference between the jama according to the produce estimate and that given by the cash rents. In Section 26 of the Nuh Report Mr. Channing notes that only 3 per cent of the tenancy lands were held on kind rents, the usual rate being one-third. I do not know what has been responsible for the change, but the universal rate throughout the whole tahsil is now one-half. The area under cash rents is not large, but the proportion has risen from 7 per cent to 17 per cent. of the cultivated area, so the rents may be taken to be fairly representative, especially as the largest number are on the characteristic magda soil of the circle.

The rates which I propose are—

| 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------------|--------|--------|--------|--------|-----------|
| Soil | Rate | Area | Demand | Total | Incidence |
| | Rs a p | Acres | Rs | Rs. | Rs a. p. |
| Chahi pakka | 2 4 0 | 3,897 | 8,768 | ... | . |
| " kachcha | 1 12 0 | 1,488 | 2,601 | .. | ... |
| Flooded | 1 4 0 | 1,685 | 2,106 | .. | .. |
| Barn | 0 15 0 | 26,149 | 24,515 | ... | ... |
| Bhar | 0 8 6 | 7,946 | 4,221 | 42,214 | 1 0 5 |

This is an increase of 14 per cent. on the present assessment. It is 82 per cent. of the cash rent estimate, and 71 per cent. of the half-net-assets as given by the produce estimate after making the necessary deductions. It is only slightly more than one-eighth of the gross produce, and may therefore be considered to be rather light, but the circle is not wealthy, and I think that the increase is quite as much as can safely be taken. The proportions of the proposed rates agree fairly closely with those of the cash rents. The chahi rate appears to be high, but the area cash rented is very small, and is hardly representative of the chahi of the circle. Moreover, the kachcha chahi is being assessed at a lower rate on account of its instability, so that there is a fair difference between the proposed rate and the rent actually taken. My village assessments in the villages which I have inspected for assessment give a total of Rs 19,147 against an existing demand of Rs. 16,720, or an increase of almost exactly 14 per cent.

41 This circle contains 106 villages. At last settlement Mr. Channing

The Dahir Circle

found it in a very prosperous condition.

The reductions granted by Mr. Barnes

at the previous settlement had enabled the tract to recover from the poverty in which he had found it, and a series of good harvests still further improved the position. The danger which Mr. Channing had to face was that owing to excessive flooding a great deal of the dahri area was liable to submersion, and in a year of good rainfall large remissions of revenue were necessary. The part most affected by this was the Kotila Shil land, which for three years had been almost totally submerged. In order to cope with this Mr. Channing proposed that this area should be given a fluctuating assessment, and this was eventually sanctioned. Mr. Wilson, when revising the assessment, came to the conclusion that the rules required further modification in favour of the zamindar and accordingly proposed the rule contained in paragraph 62 of the Revision Report, which was still in force. The number of villages affected by this arrangement is seven, and the total area under fluctuating assessment is now 4,152 acres. As the modification of the fixed and fluctuating areas may be found necessary in accordance with the wishes of the people, but the difference will be small, and the actual details can be settled after the sanction of Government to

the general proposal has been obtained. The position has of course entirely altered since settlement owing to the way in which the Kotla Jhil has been drained, but the effect is the same; where formerly they suffered from submer-sion, drought now causes at least as much distress. All the villages under the fluctuating assessment are wretchedly poor, and the appended statement will serve to show how the area capable of cultivation varies according to the seasons. I do not propose to make any change in the existing arrangements as there is no justification for any increase in the rate to be applied to the matured area, while the fluctuations of cultivation indicate that a fixed assessment is not advisable. In this connection I would refer to paragraph 46 of the Ferozpur Report. As in that tahsil none of the villages were ready for inspection, but as far as I can see no change in the rates or rules is called for. With regard to the land, which, though coming under the fixed assessment, was liable to submer-sion, Mr Channing proposed that if in any village 10 per cent. of the lands were submerged in one harvest the revenue demand on the submerged area should be remitted. This rule is I think no longer required. Under the present condi-tions it seems likely that only a very small area is liable to be submerged in a year of ordinary rainfall, and in an abnormal season it is better that the Deputy Com-missioner should be free to use his own discretion as to remission without being tied down by any rules as to the proportion that must be submerged before relief can be claimed. Moreover, the difficulty in the future is likely to be one of drought rather than of overflowing, and the 10 per cent rule seems unnecessary, but the importance of careful revenue administration cannot be too strongly emphasised. Mr Channing made a similar remark in Section 220 of the Settle-ment Report, but his idea that the tract requires a heavy assessment does not seem to have been borne out by the fiscal history. The great prosperity that attended the reduced assessment imposed by Mr Barnes shows either that the people will work with a light assessment or else that the ideas of what constituted a light assessment were wrong. Certainly Mr. Channing's demand was extremely heavy. It was based on the results of a produce estimate which contained the cultivated area of a single year admittedly far above the average, and though the commutation prices appear to have been moderate the outturns assumed—especially on the large flooded area—were somewhat high. Mr Wilson made considerable reductions at revision but even this demand has proved too heavy for the people to pay, and there are now unmistakable signs of distress. Cultivation had reached its limit at last settlement, and though population has not increased to any great extent both mortgages and sales are far too common, and the unencumbered area is terribly small. Ploughs and bullocks have decreased, and there is a general state of indebtedness, from which the people will take a long time to recover. The rates adopted by Mr Channing and Mr Wilson are compared with those deduced from the produce and cash rent estimates in the following table:—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------------|--------|---------|--------------------------|---------|--------|---------------------------------|----------|
| | Chahi | Flooded | Chiknot
and
narmot | Magda | Bhur. | Rate on
total
cultivation | Jama |
| | Rs a p | Rs a p | Rs a p | Rs. a p | Rs a p | Rs a p | Rs |
| Mr Channing | 2 8 0 | 2 0 0 | 1 6 6 | 1 4 0 | 0 10 6 | | |
| Mr Wilson | 2 0 0 | 1 12 0 | 1 5 0 | 1 2 0 | 0 7 0 | | |
| Produce esti-
mate | .. | ... | ... | | ... | 2 2 5 | 1,26,093 |
| Cash rents .. | 1 7 3 | 1 7 6 | 1 8 5 | | 0 15 9 | 1 7 1 | 1,11,785 |

Statement of the cultivated and matured areas in the villages now paying fluctuating assessment.

| 1 | 2 | 3 | 4 | 5 |
|-------------------------|------------------|--------------|-------------|-----------------|
| Year | Fluctuating area | Area matured | Area failed | Total area sown |
| Last Settlement | 6,812 | 4,355 | ... | 7,935 |
| 1883-84 ... | 7,908 | 5,795 | 3 | 5,798 |
| 1884-85 ... | 7,908 | 2,981 | .. | 2,981 |
| 1885-86 | 7,910 | 234 | 35 | 269 |
| 1886-87 . | 7,917 | 298 | 9 | 307 |
| 1887-88 ... | 7,000 | 417 | 54 | 471 |
| Total of five years | 38,643 | 9,725 | 101 | 9,826 |
| Average of five years | 7,729 | 1,945 | 20 | 1,965 |
| 1888-89 .. | 1,355 | 1,193 | 77 | 1,270 |
| 1889-90 | 7,326 | 6,582 | 453 | 7,035 |
| 1890-91 | 7,415 | 3,820 | 183 | 4,003 |
| 1891-92 | 7,463 | 6,891 | 154 | 7,045 |
| 1892-93 | 7,397 | 3,694 | 144 | 3,838 |
| Total of five years . | 30,956 | 22,180 | 1,011 | 23,191 |
| Average of five years | 6,191 | 4,436 | 202 | 4,638 |
| 1893-94 | 7,398 | 2,894 | 85 | 2,979 |
| 1894-95 . | 7,205 | 2,203 | 86 | 2,289 |
| 1895-96 | 7,029 | 956 | 674 | 1,630 |
| 1896-97 | 7,155 | 1,786 | 1,046 | 2,832 |
| 1897-98 | 7,324 | 4,574 | 1,008 | 5,682 |
| Total of five years ... | 36,111 | 12,413 | 2,899 | 15,312 |
| Average of five years | 7,222 | 2,483 | 580 | 3,062 |
| 1898-99 . . | 7,362 | 553 | 1,101 | 1,654 |
| 1899-1900 | 7,378 | 265 | 1,904 | 2,169 |
| 1900-01 .. . | 7,270 | 2,541 | 1,129 | 3,670 |
| 1901-02 | 7,274 | 1,060 | 1,236 | 2,296 |
| 1902-03 .. | 7,149 | 1,579 | 774 | 2,353 |
| Total of five years | 36,433 | 5,998 | 6,144 | 12,142 |
| Average of five years | 7,287 | 1,200 | 1,229 | 2,428 |
| 1903-04 | 7,165 | 2,242 | 1,205 | 3,447 |
| 1904-05 . . | 7,162 | 5,269 | 915 | 6,184 |
| 1905-06 . . | 7,187 | 569 | 2,887 | 2,956 |
| Total of 23 years | 163,657 | 58,396 | 14,662 | 73,058 |
| Average of 23 years | 7,116 | 2,539 | 637 | 3,176 |

As elsewhere in this tahsil the difference between the jama given by the produce estimate and that of the cash rents is due to the high rate of batai which prevails. The cash rent jama is that given after making the deductions for non-realisation. The extraordinary similarity of all rents except those on bhur shows that at present no difference is being recognised between the various classes of soil. In the case of the flooded lands I think that this is only temporary. When seasons are bad the first land to suffer is the heavy abi or dahri, which deprived of its normal moisture is practically useless. The result of the recent bad harvests has been to diminish the value of this land, but there can, I think, be no question of its real superiority. To a less extent the same is true of the chahi. At first sight it would seem that in a tract where the wells are purely protective a series of dry years would tend to increase their value, and this would be the case here but for the fact that the water is as a rule so salt that its continued use is most harmful to the soil. Moreover, owing to the poverty of the people, the expense of working a well makes it unpopular at the present time. While therefore, admitting the similarity between the two cases I should say that the depreciation in value of the chahi land will be more lasting than in the case of flooded lands, as in the former instance the recovery depends upon the recovery of the circle which is likely to be very slow: on the other hand the value of flooded land will go up at once with the advent of one or two good harvests, and this will be the chief factor in restoring the general prosperity of the tract. Accordingly in my rates I have recognised no superiority of well lands over abi and dahri, but have not maintained the close similarity between the various soils that is indicated by the cash rents. I propose to assess all abi land to a fixed assessment, and not levy any abiana in this circle. I except from this rule the irrigation by sluices on the Kahlpur and Qutabgarh Bunds, which will ordinarily pay a barani assessment, but when flood water is received a fluctuating rate will be charged. For these lands and any others which, under the new rules that are being proposed, may become liable to pay a fluctuating rate, I propose that a rate of 10 annas per pakka biga be sanctioned. This is very nearly the amount of the difference between the values of a matured acre of flooded and barani land as shown in the produce estimate, and is as high as I think can fairly be imposed.

The rates which I propose are—

| 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------------|--------|--------|--------|--------|-----------|
| Soil | Rate | Acre | Demand | Total | Incidence |
| | Rs a p | Acres | Rs | Rs | Rs a p |
| Chahi and Flooded ... | 1 7 0 | 29,214 | 41,995 | | |
| Barani ... | 1 3 6 | 39,698 | 48,381 | | |
| Bhur . . . | 0 10 0 | 8,473 | 5,296 | | |
| | | | | 95,672 | 1 3 9 |

The new demand is 81 per cent of the cash rent estimate and 73 per cent of the half-net-assets as given by the produce estimate. It is almost exactly one-seventh of the gross produce, which under present circumstances is fully as high a proportion as can be taken from the circle. My assessments in the villages which I have inspected come to Rs 35,261 against a present demand of Rs 36,537, or a decrease of 4 per cent against one of 6 per cent according to my proposals.

42. This circle contains 99 villages. Like the Dahar Circle it was heavily assessed at last settlement, but fortunately, owing to the introduction of canal irrigation, it is in a most flourishing condition now, though of course the area which is not served by the canal presents a marked contrast. The soil is a fair level loam, and in a good year crops are nearly equal to those of the Dahar Circle. The canal, at the extreme edge of the distribution area, and consequently there is a difficulty of water. Very few cases of water-logging have come to the notice of the collector. The soil has undoubtedly been weakened by irrigation in places, and this is a difficulty in assessing the tract now is that the unirrigated area

the best at last settlement and so while the introduction of the canal would have made the assessment light on that portion in any case, we find that the prosperous villages were more leniently treated than those which have not as yet benefited by the canal at all. The statistics of the circle as a whole do not emphasise this position, and I have therefore drawn attention to it here, as it has a very important bearing on the amount of increase that can safely be taken. Apart from canal irrigation the circle is singularly devoid of advantages. The wells are merely protective as in the Dahar Circle, and the water being generally salt they are little used. There is no flooded land, and very little benefit has been derived from the bunds. It is therefore hard to imagine a greater contrast than that presented by the two parts of this circle. Certainly there is not the same poverty as exists in the Dahar Circle, because the people as a whole are more thrifty, but on the other hand the canal villages are extremely well off, and could have afforded to pay a higher revenue than has been exacted. The rates adopted by Mr. Channing and Mr. Wilson are compared with those deduced from the produce and cash rent estimates in the following statement —

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------------------|--------|-------|---------|--------------------------|-------|---------|---------------------------|----------|
| | Chahi | Nahri | Flooded | Chuknot
and
Narmot | Magda | Bhur | Total
cultiva-
tion | Jama |
| | Rs a p | Rs a | Rs a | Rs a | Rs a | Rs a, p | Rs a p | Rs. |
| Mr Channing | 2 10 0 | | 1 12 | 1 4 | 1 1 | 0 10 6 | 1 3 9 | 1,05,772 |
| „ Wilson | 1 12 0 | .. | 1 4 | 1 4 | 1 0 | 0 6 0 | 1 2 9 | 1,00,444 |
| Produce estimate | .. | | 1 6 | 1 6 | 1 6 | 0 11 6 | 1 13 5 | 1,51,408 |
| Cash rents | 1 13 9 | 1 6 | 1 6 | 1 6 | 1 6 | 0 11 6 | 1 5 7 | 1,17,350 |

The present assessment is Rs 1,00,860, and the increase given by the kind and cash rent jamas is 56 per cent and 17 per cent respectively. As pointed out in paragraph 35 the nahri cash rent rate is unreliable, and should be increased to about Rs. 2-4-0, making the total jama Rs 1,37,000, and giving an increase of 37 per cent. The difference between the two jamas may then be attributed entirely to the high rate of batar. I have made no difference between the abi and unirrigated rates, as the area of abi land is too small to afford any real indication of its letting value. The unirrigated rates may be compared with those in force in the Dahar Circle. The higher chahi rate does not indicate superiority in the well irrigation, but is the result of the greater prosperity of the circle, which allows advantage to be taken of the wells to a degree impossible there.

Turning to the actual assessment, I must begin by noting that I propose to levy a fixed assessment on canal lands, as was done in the Palwal Tahsil. The point has been discussed in paragraph 41 of that report, and here too I shall make no distinction between “lift” and “flow” irrigation for the same reasons as were given there. The difficulty of taking a full increase from the canal villages has already been touched upon. Most of the canal area was leniently assessed at unirrigated rates, and no attempt has been made to give Government a share in the increased profits that have accrued for some years past. Consequently in some cases a full half net assets demand would entail a perfectly impossible increase in the revenue. Probably a short term assessment would be best for this tract, but as the orders of Government have already been asked for on this point there is nothing further to say. If progressive assessments are sanctioned, the necessary proposals will be put forward later.

The rates which I propose are—

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------|--------|--------|--------|----------|-----------|---------------------------------------------|
| Soil | Rate | Area | Demand | Total | Incidence | REMARKS |
| | Rs a p | Acres | Rs | Rs | Rs a p | |
| Chahi | 1 8 0 | 4,876 | 7,314 | | | |
| Nahri | 1 11 0 | 23,273 | 39,273 | | | |
| Barani | 1 3 6 | 51,957 | 61,321 | | | |
| Bhur | 0 10 0 | 6,879 | 4,299 | 1,14,267 | 1 5 0 | Barani includes 1,028 acres of flooded land |

This gives an increase of 14 per cent. My village assessments in the villages inspected by me give a total of Rs. 48,743 against a previous assessment of Rs. 43,983, or an increase of about 11 per cent. I had originally proposed an increase of only 12 per cent., but the present rates have been arrived at in consultation with Mr. Gibson, with whose suggestions I entirely agree. I do not think that the village notes require revision at present, but if after inspecting the remaining villages this is found necessary, I do not anticipate that there will be any difficulty in making the slight enhancement. The new demand is 83 per cent of the corrected cash rent estimate and 73 per cent. of the half net assets as given by the produce estimate. It is over 97 per cent of the actual cash rent jama, and if there were the slightest fear that the nahn rents represented the true state of things, it would be impossible to approach so closely to it. This point has, however, been fully discussed, and I will merely repeat that I think that the corrected estimate is as near the truth as one can hope to get with an assumption as against actual facts.

43. By these proposals the fixed demand of the tahsil is raised from Rs. 2,38,113 to Rs 2,52,093, giving an increase of nearly 6 per cent. The incidence on the cultivated area is Re 1-3-7 per acre. I have not included the assessment of the fluctuating area, as it is impossible to estimate with any accuracy what the yearly collections from it will be. At present owing to the dry seasons, the demand runs very small. However as no change is being proposed in the existing arrangements, it would probably be better to omit it from our calculations in any case.

44. Before leaving the question of assessment it will be as well to summarise the effect of the new proposals regarding the method of dealing with abia land. From the attached statement of the receipts of abiana from bunds in the Nuh Tahsil, it will be seen that the average receipts amount to Rs 2,826 per annum. The abia area in the Dahar Circle is now 6,615 acres (Statement II), and according to the new proposals this will be assessed at Re. 1-7-0 per acre, or Re. 0-5-5 per acre above the all-round barani rate. This gives a total advantage of Rs. 2,239. In the Taoru circle 1,088 acres are assessed at Re 1-4-0 against an all-round barani rate of 13 annas, giving a total advantage of Rs 476. To this must be added the abiana from the Taoru bunds, which according to the statement comes to Rs. 582 per annum. The total advantage according to the new system is therefore Rs 3,297, or a net advantage of Rs. 471 over the present abiana system. As a matter of fact the advantage is probably even greater, as the amount of abiana collected of recent years has been much smaller, and the average collection includes some of the first years, when the flooded area was abnormally large. Even granting that the existing position is principally due to the recent drought, it must be remembered that for some time abiana was levied off dahri land, and in fact this practice has only recently been stopped. Under these circumstances we are probably justified in assuming the net advantage under the new system will not be less than Rs 471, and may well be more. That it will be a popular departure with the people I have no doubt, as in the Dahar Circle the abiana system is hated, and the almost universal request has been that it may be abandoned.

Statement showing the annual collections of abiana in the Nuh Tahsil

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|-----------|---------------|-------------|-----------|-------------------------|------------|----------|----------|----------|---------|---------|-------------|--------------|-------------------------------------|
| YEAR | NAMES OF BUND | | | | | | | | | | | | |
| | Kotha. | Qatabgarh | Khalipnr | Taora
Bahora
road | Taora | Dhalavat | Raborn | Sabras | Palla, | Palri | Alora | Total | REMARKS |
| | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | Rs a p | |
| 1893-94 | 5,232 11 0 | | 33 12 3 | | | 55 5 6 | | | 9 11 3 | 3 7 8 | 503 13 9 | 6,838 13 2 | The Ahirango collection is Rs 2,828 |
| 1894-95 | 3,909 9 6 | 3,436 14 7 | 247 15 7 | 863 0 3 | 487 10 0 | 80 0 6 | | 9 2 6 | 1 6 3 | | 59 3 2 | 9,144 14 7 | |
| 1895-96 | 306 8 0 | 601 8 0 | 726 5 0 | 805 4 0 | 126 7 6 | 50 13 0 | | | | | | 2,182 11 8 | |
| 1896-97 | 4,123 0 0 | 2,742 13 11 | 303 15 0 | 375 8 3 | 106 2 9 | 08 15 0 | | | 14 9 0 | 11 6 8 | 502 12 9 | 8,849 9 2 | |
| 1897-98 | 15 10 8 | | | 625 9 8 | 158 13 2 | 27 4 6 | | | 10 6 6 | 17 11 6 | | 861 7 11 | |
| 1898-99 | 75 14 5 | | | 413 12 0 | 193 0 8 | 28 11 5 | 51 13 0 | | | | | 782 10 4 | |
| 1899-1900 | | | | 10 0 0 | | | | | | | | 10 0 0 | |
| 1900-01 | 560 10 7 | 1,664 4 5 | 651 5 4 | 421 2 9 | 202 2 6 | 40 11 5 | 110 15 7 | 118 7 5 | 13 15 9 | 10 7 3 | 45 12 0 | 3,869 15 0 | |
| 1901-02 | 33 3 2 | 78 5 3 | 166 15 0 | 260 8 5 | 209 1 3 | 47 10 0 | 123 5 3 | 44 14 3 | 0 10 4 | | 20 12 8 | 991 0 2 | |
| 1902-03 | 710 14 2 | 919 5 0 | 850 9 10 | 1,041 11 3 | 293 3 3 | 15 10 0 | 265 1 5 | 80 14 6 | 6 5 6 | 1 14 5 | 24 12 8 | 3,092 7 3 | |
| 1903-04 | | | 8 6 0 | 25 11 0 | 48 11 8 | 35 4 7 | 30 8 0 | 0 10 4 | | | 45 9 6 | 194 13 10 | |
| 1904-05 | 351 2 1 | | 43 14 2 | 174 13 6 | 39 1 9 | 53 9 0 | 28 9 10 | 28 8 9 | | | 28 13 2 | 751 8 7 | |
| 1905-06 | 25 10 2 | | | 1,22 13 9 | 152 2 8 | 22 7 1 | 30 5 3 | 12 1 8 | 0 1 7 | 2 11 3 | 20 4 4 | 388 9 7 | |
| Total | 15,417 2 7 | 9,413 3 11 | 2,533 4 1 | 4,118 15 2 | 1,935 15 0 | 572 5 0 | 630 11 4 | 224 11 3 | 83 2 2 | 47 10 0 | 1,651 13 11 | 36,738 14 10 | |
| Average | 1,185 15 0 | 726 0 6 | 194 13 10 | 310 13 6 | 148 14 8 | 44 0 5 | 48 8 3 | 24 15 8 | 1 13 8 | 3 10 8 | 127 1 1 | 2,820 1 2 | |

CHAPTER II—MISCELLANEOUS

45. Owing to the peculiar system of irrigation in force in this tahsil it is difficult to put up any proposal for protective leases by which the cultivator can be adequately recouped. No definite scheme can be made until orders are received upon the proposals made in the Rewari Report, but the following details will suffice to show what the problem in the Nuh Tahsil is :—

| 1 | 2 | 3 |
|-------------|-----------------------|--------------------------------------------------|
| Circle | All-round barani rate | Government share of the profit due to irrigation |
| | Rs a p | Rs a p |
| Taoru . . . | 0 13 0 | 2 0 0 |
| Dahar | 1 1 7 | 1 0 0 |
| Bangar | 1 2 4 | 1 0 0 |

Where there is so little regular chahi it is impossible to make any difference between the ordinary barani crops and those grown without irrigation on chahi land. Indeed in some places in the Dahar and Bangar Circles the effects of irrigation are to injure the succeeding dry crops, and this counterbalances any advantage of situation or manuring that would otherwise have to be taken into account.

The results of the calculation therefore are as follows.—

| 1 | 2 | 3 | 4 |
|---------|-------------------------------------------------------------------------|---------------------------|--------------------|
| Circle | Area in acres irrigated per pacca well, Statement III, columns 6 and 33 | Owner's annual net profit | Cost of pacca well |
| | | Rs | Rs. |
| Taoru . | 7 $\frac{1}{2}$ 0 | 30 | 750 |
| Dahar . | 4 $\frac{1}{2}$ | 9 | 450 |
| Bangar | 6 | 12 | 750 |

46 The rules in Financial Commissioner's Circular letter No 5890, dated 30th September 1904, as amended by Financial Commissioner's Circular Memo No. 1, dated 10th April 1907, are suitable and should be extended to this tahsil. In the Taoru Circle where irrigation is regular and the chahi land valuable, it is probable that a number of villages will distribute their revenue on soil rates. In the other circles the tendency appears to be to an all-round rate.

47. The various questions arising out of canal irrigation have been dealt with in the Palwal Report. The rules in force should be the same as far as possible over the whole area irrigated by the Agra Canal. Certainly in the Nuh Tahsil there are no special features that call for any separate treatment. I have elsewhere stated that in my opinion a short term assessment would be better than progressive assessments in certain villages, but if the latter system is adopted a separate scheme will be submitted as soon as all the villages have been inspected.

48 In paragraph 52 of the Firozpur Report detailed proposals for rules to regulate the assessment of abai land have been submitted. It is advisable to have only one set of rules for the district, and I have nothing to add to those

proposals. But assuming that they are sanctioned, it will be necessary to make certain exceptions in the Nuh Tahsil. I therefore propose to make the following addition to Rule 1 (a) —except (i) the land classed as *abi* in the Taoru Circle, and (ii) the land inside the Khahlpur and Qutabgarh bunds in the Dahar Circle, which is irrigated by means of sluices. As regards (b) it should be laid down that the *chahi* land in the village of Qutabgarh, which is situated inside the bund is not referred to in this sub-section. This explanation is necessary, as the sluice is always opened at the request of the people, and the water has to pass over land, which is protected by the wells, though the latter are never used in a year when the flooding is sufficient. The position of this land will be taken into account in the village assessment and no *abiana* should be levied.

49 The term of settlement, which is suitable is 30 years. If a shorter term is finally sanctioned for the canal villages in the other tahsils, it will be advisable to fix the same term here as well, but no orders are required on this point at present. The existing settlement expired with the *rahi* instalment of 1907. In paragraph 53 of the Ferozpur Report it has been shown that there is no possibility of the new demand being imposed before Kharif 1908, and provided that orders are received in time, that date will be suitable for this tahsil also.

Cesses

50. The sanctioned cesses are—

| | Rs | a | p |
|------------|----|---|---|
| Local rate | 8 | 5 | 4 |
| Lambardari | 5 | 0 | 0 |
| Total | 13 | 5 | 4 |

These should be continued.

Points on which orders are required

51. The points upon which orders are required are—

- (a) The proposed rates and assessments including the method of assessing *nahri* and *abi* lands (paragraphs 40—42).
- (b) Adoption of the rules for the remission of the wet assessment when a well falls out of use (paragraph 46)
- (c) Adoption of the rules proposed in paragraphs 47 and 48 of the Palwal Report, if they or similar rules have been sanctioned (paragraph 47)
- (d) Adoption of the rules proposed for lands flooded by water from bunds, but not classed as *abi* (paragraph 48).
- (e) Cesses (paragraph 49)
- (f) Date of Imposition of the new demand (paragraph 50)

GURGAON

Dated 8th October 1907.

G. M. BOUGHEY,

Assistant Settlement Officer

